

## BOROUGH OF LEIGH.

# Annual Report

OF THE

# Medical Officer of Health

FOR THE

Year ended December 31st, 1913.

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### MEDICAL OFFICER OF HEALTH'S REPORT FOR 1913.

To the Chairman and Members of the Health Committee of the Borough of Leigh.

GENTLEMEN,

I have the honour to present for your consideration my Report on the Health and Sanitation of the Borough of Leigh for the year ended December 31st, 1913.

In accordance with the requirements of the Local Government Board this report is presented in a form somewhat different to those of previous years.

Some of the matter in the Report such as a "General description of the district" is a repetition year after year, with such alterations as may be required—the Local Government Board desire this class of information to be embodied in each Annual Report.

The Report for 1913 is divided into sections, so that the work which is now systematized in the Health Department may be more conveniently discussed under the respective headings. This necessitates a slight redundancy in one or two of the sections, but it allows tables and diagrams to be given with the details, so that the sanitary improvements and defects may be more clearly shewn.

The more important features of the work done are discussed in detail. In the section dealing with the Notification of Births, that portion of the Health Visitor's Report which deals with this subject is incorporated—a further portion of the Health Visitor's Report being incorporated with the section dealing with Tuberculosis. The Sanitary Inspector's Report is incorporated with the section dealing with the General Sanitary Work.

Of the new work done during the year the chief items are those under the Tuberculosis Order and the Infants' and Mothers' Welfare Clinic—both of which are of the utmost value to the community—the systematic testing of drains in association with Infectious Diseases and a more vigorous campaign with regard to the Housing Acts.

On examining the Vital Statistics for the year it will be observed that a detailed investigation has been carried out in the cases of all infant deaths under I year of age. The following Tables shew the extent and character of the work done and are worthy of careful perusal.

The Tables shew that some of the more general ideas are not borne out, and other facts, not sufficiently appreciated, are emphasized.

In relation to the Infant Mortality details, poverty is associated with 39 % of all deaths under 1 year whilst in those infants who died from Epidemic Diarrhœa 43% shew indications of poverty.

The causes of the infant deaths are given in Tabular form and it is interesting to note:—



That

Bronchitis and Pneumonia account for 22% of the deaths.

Diarrhœa and Enteritis account for 34% of the deaths.

Premature Birth and Congenital Malformation account for 20% of the deaths.

these 3 classes of diseases account for 76% of the infant deaths.

The figures in the report for 1913 are not so satisfactory as one would wish. The death-rate shews an increase over that of the previous year, and is practically accounted for by the increase in the number of infant deaths. The deaths of infants artificially fed shew an increase from Epidemic Diarrhœa; the result is not only an increased Infant Mortality Rate, but also an increased Zymotic Disease Death-rate and so an increase in the general Death Rate.

In my opinion climatic conditions had a good deal to do with the deaths of many of the infants artificially fed. In the warm weather the infants' food is so liable to be contaminated by flies, dust and dirt, particularly in cottage property where the means of storage are limited.

So far as Infectious Diseases are concerned the past year may be looked upon as quite a good one.

The birth-rate is practically the same as for last year. The tables appended shew the actual conditions in 1913.

With regard to the work accomplished under the Housing Acts, some good work has been done, but owing to the shortage of houses this work has not been carried out as satisfactorily as I would wish.

The section on Tuberculosis shews the work done during the year. Pending the appointment of Tuberculosis Officers for the district, I have endeavoured to assist the County Authorities by doing some of this work for them.

I wish to acknowledge the courtesy and sympathy of the Chairman, Vice-Chairman and Members of the Health Committee, and I wish to thank my Colleagues and Staff for the help given to me in carrying out the work of the Health Department.

I am, Gentlemen,

Yours obediently,

FRANK WEBB,
Medical Officer of Health.

#### BOROUGH OF LEIGH, 1913.

## HEALTH COMMITTEE.

HIS WORSHIP THE MAYOR (Councillor Joseph Ashworth, J.P.)

#### Chairman:

Councillor HENRY ISHERWOOD, J.P.

#### Deputy-Chairman:

Councillor JOSEPH ASHWORTH, J.P. (MAYOR).

Alderman	WILKINSON	Councillor	HOLDEN
Councillor	BROOKS	,,	HUNTER, J.P.
,,	DARWELL	,,	OWEN, J.P.
,,	GREGORY	,,	PARTINGTON
,,	GRUNDY, J.P.	,,	PRESCOTT
		ę)	RIGBY

# SUMMARY OF VITAL, MORTAL AND OTHER STATISTICS, 1913.

Position: Latitude 53° 29', Longitude 2° 31'

Elevation above Sea Level: Highest point 138 feet, lowest point 56 feet, above Sea Level.

Geological Formation: Clay on red sandstone, underneath which are the coal-bearing strata.

Area of Borough	• • •	• • •	• • •	• • •	6,347 acres
Area of Water	• • •	• • •	• • •	• • •	150 ,,
Population	• • •			• • •	45,000
Density	• • •	• • •		• • •	7.08
New Houses Cert	ified 191	3	• • •	• • •	34
Rateable Value 15	th Nove	mber, 191	13	£1	83,829
Births	• • •	• • •		• • •	1,258
Birth-rate	• • •	• • •	• • •		27.95
Deaths		• • •	• • •		815
Death-rate correct	ed for tr	ansferabl	e deaths	* * *	18.11
Infant Mortality fi	gure per	1000 bir	ths	• • •	184
Zymotic Death-rat	te	• • •		• • •	3.77
Diarrhœa Death-ra	ate		• • •	• • •	2.48
Pulmonary Tubero	culosis D	eath-rate	• • •	, , ,	1 *24
Other forms of Tu	iberculos	is Death-	rate	• • •	*24
Respiratory Disease	ses Deat	h-rate	• • •	t 0 0	4*00
Rainfall	• • •	• • •	,	• • •	27.48 inches
England and Wale	es Death	-rate	• • •	• • •	13.7
, ,	Birth-r	ate	r • •		23.9
, ,	Infant	Mortality	figure	• • •	109

#### SECTION A.

General Description of the Natural and Social Conditions of the Borough.

# GENERAL DESCRIPTION OF NATURAL AND SOCIAL CONDITIONS OF THE BOROUGH.

The Borough covers an area of 6,347 acres of which 150 acres are covered with water.

The whole of the district is flat and low-lying—the lowest point, 56 feet above sea level being in the south-western part of the Etherstone Ward, the highest point, 138 feet above sea level, being in St. Paul's Ward.

The Geological formation is of clay over red sandstone, underneath which are the coal-bearing strata.

As you know, in certain parts of the Borough subsidence is gradually, but surely, going on, due to mining operations underneath, causing trouble in some of the localities with the drains and sewers.

The climatic conditions are peculiarly favourable to the staple industry of Cotton Spinning, of which advantage is being taken by the erection of New Cotton Mills. The Borough is unique in the fact that it extends over so large an area, calculated for its present population it gives a density of only 7.08 persons per acre—the central portion is occupied by the Industrial Classes—workers in the Cotton Industries, Coal Mines and Agricultural Implement Works; the outlying portions of the Borough are purely agricultural in character. Within the Borough are 54 Farms as well as six large Collieries. Other industries comprise a large Brewery, Silk Manufacture, Cable Making; Gas and Electricity Works, and Destructor Works, are Municipal Undertakings.

Owing to these conditions the centre of the Borough is densely populated—the rural district only sparsely populated.

All these conditions have an important bearing on the hygienic and economic aspects of the district.

For Municipal purposes, the Borough is divided into eight Wards and the bulk of the population is concentrated in the Central

Ward of St. Mary's—this Ward with the Lilford Ward, St. Joseph's, St. Thomas's, St. Peter's, St. Paul's, and a portion of Etherstone being practically Urban in character, the remaining portion of the Etherstone Ward and Hope Carr Ward being Rural in character.

The inhabitants of the Borough consist almost entirely of the Industrial Class, both males and females being employed in the Cotton Industries. The six Collieries in the Borough supply employment for a large number of the male population, and a small amount of female labour is employed as Pit Brow Workers. In normal times the Borough of Leigh may be said to be a prosperous one. An endeavour is now being made to render the Housing conditions satisfactory, the worst cases are being dealt with under the Housing Acts, and during the past year some progress has been made, over 50 Closing Orders having been The difficulties in carrying out the Housing Acts is intensified by the shortage of houses in the Borough, and although the Corporation are now erecting 100 houses for the Working Classes and contemplate the erection of a further 200 houses, in my opinion these will hardly meet the needs of the situation. Overcrowding is a real trouble, and in consequence it has been most difficult to do the work efficiently under the Housing Acts.

The prevailing dampness which exists, though particularly favourable to Cotton Spinning, is not so favourable to the individual—diseases of the Respiratory System, including Pulmonary Tuberculosis, Catarrhs and the Rheumatic affections, so called, are not assisted by the Climatic conditions. Our infant death-rate for diseases of the Respiratory system being one of the highest in the United Kingdom.

The Hospital accommodation available for the Borough of Leigh is provided by the Trustees of the Leigh Infirmary. This building is situated within the Borough, it has 32 beds used mostly for Surgical cases.

There are no special departments attached to this Hospital.

There is no out-patients' department.

No resident House Surgeon.

An X Ray apparatus has recently been presented to the Hospital and is now about to be installed.

In addition to the above, there is an Infectious Diseases Hospital with 128 beds available for the ordinary Infectious Diseases and also a small two-block Small-pox Hospital with 32 beds.

The cost of Poor Law Relief for 1913 was £1743 18s. 7d.

Outside the Poor Law and Insurance Act there is no gratuitous Medical Relief.

The following data are interesting:

Borough of Leigh 1913.

Population census 44, 109, estimated 45,000.

Position: Latitude 53° 29' Longitude 2° 31'

Elevation above sea level: Highest point 138 feet.

Lowest point 56 feet.

Geological formation: Clay over red sandstone, under-

neath which are the coal-bearing

strata.

Area of Borough in acres; 6347.

Area of water: 150 acres.

Total rainfall for the 12 months: 27.48 inches.

Average rainfall for 13 years: 33 inches.

Rainfall for the months of 1913:-

January 3'45 inches. February I,00 ,, March 2.81 April 3.68 ,, May 2.48 ,, June 1.08 July I '27 ,, August 2,12 September I '47 October 2.08 November 2.91 December 2.18 ,,

The small amount of rainfall in the summer months has undoubtedly been one of the chief factors in causing the high infant deathrate from Epidemic Diarrhæa. A comparison with the figures for last year is interesting when with a large amount of rainfall in the summer months, Epidemic Diarrhæa hardly existed.

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COMPARATIVE TABLE OF THE CENSUS FIGURES FOR 1911 AND THE ESTIMATED FIGURES FOR 1913.

WARDS.         Population.         No. of Houses.         No. of Houses. <th></th>											
Census         Estimated 1913.         Census 1913.         1913.	S.	Popu	lation.	No. of	Houses.	No. of per H	Persons ouse.	Acre	age.	Dens	aty of lation.
5255         5374         953         962         5.51         5.58         674         674         779            12204         12490         2535         2587         4.8         4.82         242         242         50.43         5            4653         4690         1043         1043         4.4         4.9         261         1782         1782         1782         1782         1782         1782         1782         1782         1782         1782         1782         1782         1782         1782         1782         1782         1782         1782         1784         4.7         4.78         572         589         1767         1784         1782         1767         1782         1767         1767         1767         1767         1767         1767         1767         1767         1767         1767         1767         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         1760         <		Census 1911.	Estimated 1913.	Census 1911.	Estimated 1913.	Census 1911.	Estimated 1913.	.1161	1913.	Census 1911.	Estimated 1913.
4.53       2.535       2.587       4.8       4.82       242       242       50.43       5          4.653       4.690       1043       1043       4.4       4.49       261       261       17.82       1          5109       5160       1129       1134       4.5       4.55       289       289       17.67       1          5094       5158       1067       1078       4.7       4.78       572       572       890       17.67       1          4504       4627       878       890       5.1       5.19       899       899       5.01       1          4588       4721       839       848       5.4       5.56       715       715       641          44109       4500       9021       9132       4.92       6347       6347       695			5374	953	296	5.21	5.28	674	674	64.4	26.2
4653       4690       1043       1043       4'4       4'49       261       261       17'82       1         s        5109       5160       1129       1134       4'5       4'5       289       289       17'67       1           5094       5158       1067       1078       4'6       4'7       4'78       572       572       8'90           2702       2780       577       590       4'6       4'71       2695       2695       1'00           4504       4627       878       890       5'1       5'19       899       5'01           4588       4721       839       848       5'4       5'56       715       6'41           44109       45000       9021       9132       4'92       6'94       6'347       6'347       6'95	:		12490	2535	2587	8.4	4.82	242	242	50.43	19.19
s        5109       5160       1129       1134       4.5       4.55       289       289       17.67       1            5094       5158       1067       1078       4.7       4.78       572       572       890            2702       2780       577       590       4.6       4.71       2695       2695       1.00           4504       4627       878       890       5.1       5.19       899       899       5.01           4588       4721       839       848       5.4       5.56       715       715       641           44109       4500       9021       9132       4.9       492       6347       6347       695			4690	1043	1043	. 4	4.49	261	261	17.82	96.41
5094         5158         1067         1078         4'7         4'78         572         572         8'90             2702         2780         577         590         4'6         4'71         2695         2695         1'00             4504         4627         878         890         5'1         899         899         5'01             4588         4721         839         848         5'4         5'56         7'15         6'41             44109         45000         9021         9132         4'92         6'92         6347         6'95			5160	1129	1134	4.5	4.55	289	289	29.21	17.85
2702         2780         577         590         4.6         4.71         2695         2695         1.00           4504         4627         878         890         5.1         5.19         899         899         5.01           4584         4721         839         848         5.4         5.56         715         715         6.41           44109         45000         9021         9132         4.9         4.92         6347         6347         6.95	• •		5158	2901	1078	1.4	4.78	572	572	8.30	10.6
4504         4627         878         890         5 · 1         5 · 19         899         899         5 · 01           4588         4721         839         848         5 · 4         5 · 56         715         715         6 · 41           44109         45000         9021         9132         4 · 9         4 · 92         6347         6347         6 · 95			2780	577	590	4.6	4.71	2692	2692	00. I	1.03
4588         4721         839         848         5.4         5.56         715         715         6.41           44109         45000         9021         9132         4.9         4.92         6347         6347         6.95	•		4627	848	890	5.1	61.5	668	899	5.01	5.14
44109         45000         9021         9132         4.9         4.92         6347         6347         6.95	•		4721	839	848	.c	2.26	715	715	6.41	09.9
	3orough	<u> </u>	45000	9021	9132	4.6	4.62	6347	6347	26.9	60.2

#### POPULATION AND VITAL STATISTICS.

The population of the Borough, estimated to the middle of 1913 was 45,000.

The following Table gives the estimated population of each Ward to the middle of 1913:—

Wards.		stimated pulation.	No. of Houses.	No. of persons per house.	Acreage.	Density of Population.
St. Paul's	. • •	5374	962	5.28	674	7.97
St. Mary's		12490	2587	4.82	242	51.61
Lilford	• • •	4690	1043	4.49	261	17.96
St. Thomas's	S	5160	1134	4.55	289	17.85
St. Joseph's	• • •	5158	1078	4.78	572	<b>9.</b> 01
Hope Carr		2780	590	4.71	2695	1.03
Etherstone	. • •	4627	. 890	5.19	899	5.14
St. Peter's		4721	848	5.26	715	6.60

#### BIRTHS.

The total number of births registered in the Borough during the year was 1247. Of these 643 were boys and 604 girls.

This is equivalent to a birth-rate of 27.71 per 1000 inhabitants, which compares with a birth-rate of 27.39 in 1912.

There were 11 births registered outside the Borough belonging to the distrist, making a total of 1258 births and a corrected birth-rate of 27.95.

Of the 1258 births registered, 42 were illegitimate which is 3.3 per cent. of the total births.

The highest birth-rate occurred in St. Paul's Ward 35.91, and the lowest in Hope Carr Ward 20.81.

In the previous year the highest birth-rate was 36.49 in St. Paul's Ward, and the lowest 18.44 in Hope Carr Ward.

#### DEATHS.

During the year 725 deaths were registered in the Borough, giving a death-rate of 16.11 per 1000 inhabitants, compared with 588 deaths with a rate of 13.18 per 1000 in the preceding year.

In addition to the above, 90 transferable deaths have to be added—these are the deaths of persons dying out of the Borough, but belonging to our district.

Of the above corrected totals of deaths 815, 431 males and 384 females died. These figures give a death-rate of 18'11 per 1000.

These deaths are included in Tables I. and IV. appended to this Report, and give a total number of 815 deaths (males 431, females 384), and a recorded death-rate of 1811 per 1000 as against 675 deaths with a recorded rate of 1513 per 1000 in the preceding year.

The average Death-rate for the five years 1908 to 1912 is 16.50 per 1000.

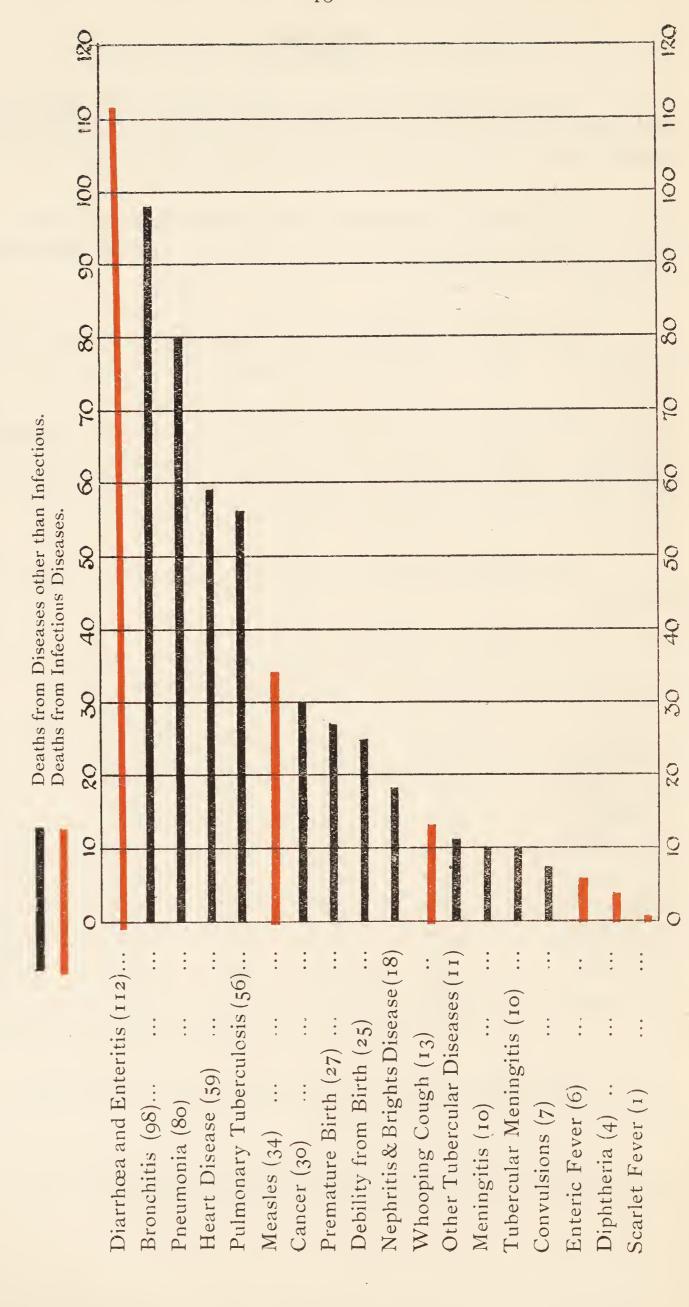
The following Table gives the population, number of births and deaths, and rate per 1000 in each Ward during the year:—

	F	opulation.	Deat	hs.	Births.	Death-rate per 1000.	Birth-rate per 1000.
St. Paul's		5374	130	О	193	24.19	35.91
St. Mary's	• • •	12490	20	5	338	16.41	27.06
Lilford		4690	8	5	109	18.12	23.24
St. Thomas's		5160	88	3	126	17.05	24.41
St. Joseph's		5158	108	3	142	20.01	27.51
Hope Carr		2780	38	8	58	13.66	20.81
Etherstone	• • •	4627	82	2	137	17.72	29.60
St. Peter's	• • •	4721	79	9	155	16.73	32.83
Total	• • •	45000	81	5	1258	18.11	27.95
							. 75

The highest death-rate 24.19 occurred in St. Paul's Ward and the lowest 13.66 in Hope Carr Ward.

In the previous year the highest death-rate was 18.32 in St. Joseph's Ward and the lowest 12.61 in St. Mary's Ward,

DEATH OF THE PRINCIPAL CAUSES OF VIEW OMPARATIVE



## SUMMARY OF THE PRINCIPAL CAUSES OF DEATH, 1913. GENERAL DISEASES.

GI	ENERAL DISEASES.				
			No. of deaths.	Per cent. of total of deaths.	Death-rate per 1000 of population.
I	Epidemic Diarrhœa	• • •	I I 2	12.22	2.48
	Measles		34	4'17	·75
	Whooping Cough	• • •	13	1.29	.28
	Specific Fevers		ΙΙ	1.34	*24
	2 CONSTITUTIONAL DIS	EASE	S.		
a	Pulmonary Tuberculosis		56	6.87	1*244
b	Other Tubercular Diseases		ΙΙ	1.34	0°24
С	Cancer		30	3.68	0.66
	3 DEVELOPMENTAL DIS	EASE	4.		
a	Premature Birth and Congenital				
	Debil	ity	52	6.38	1.12
LC	DCAL DISEASES.				
I	Heart and Circulatory System	5 <b>0 0</b>	59	7.23	1.31
2	Respiratory System—				
	a Bronchitis	• • •	98	12.02	2.14
	b Pneumonia	• • •	80	9.81	1.77
3	Urinary System		. 18	2.50	0.40
4	Reproductive System				
	Pregnancy and child birth	• • •	6	0.43	0.13
5	Other ill-defined diseases not specified in schedule		7 I	20.98	<b>3.8</b> 0
	not specified in schedule	• • •	/ 1	20 90	3 00
V	OLENT CAUSES.				
	A . 1				
ľ	Accidents	• • •	32	3.92	0.41
2,	Suicides	* * *	I	0'12	0.02

#### INQUESTS.

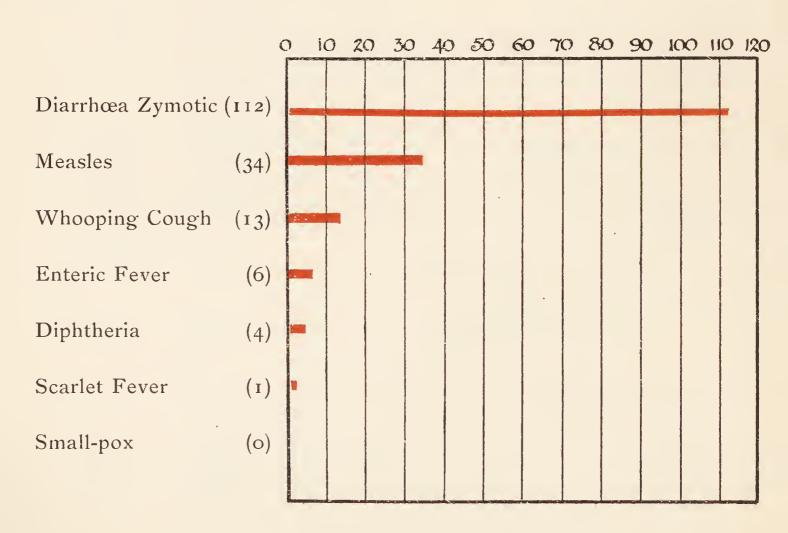
Forty-six Inquests were held during the year, as against fifty-eight in the previous year. The causes of death certified were as follows:—

Natural Causes	• • •	• • •		I 2
Accidental Scalding				I
Accidental Drowning		• • •	• • •	8
Accidental Injury	• • •			20
Accidental Suffocation	• • •			3
Suicide by Hanging				I
Syncope	• •		• • •	1
Phthisis (accelerated by	Accide	ntal In	juries)	I

#### ZYMOTIC DEATH RATE.

The death-rate from the seven principal Infectious Diseases, including Diarrhœa, was equal to 3.77 per 1000, as against 1.36 per 1000 in 1912.

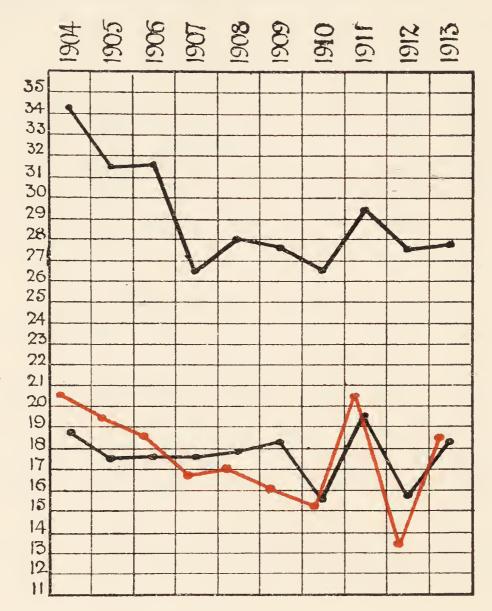
The following Table shews the deaths from the principal zymotic diseases:—



#### VITAL STATISTICS.

	St. Paul's.	St. Mary's.	Lilford.	St. Thomas's	St. . Joseph's.	Hope Carr.	Ether- stone.	St. Peter's.	Total.
Population	5374	12490	4690	5160	5158	2780	4627	4721	45000
No. of houses	962	2587	1043	1134	1078	590	890	848	9132
Number of persons per						•			
house	5.28	4.82	4°49	4.55	4.78	4.41	5.19	5.26	4*92
Acreage	674	242	<b>2</b> 61	289	572	2695	899	715	6347
Density of									
Population	7.97	51.61	17.96	17.85	9.01	1.03	5.14	6.60	7.08
Birth-rate									
per 1000	35.91	27.06	23.54	24.41	27.21	20.81	29.60	32.83	27.95
Death-rate									
per 1000	24.19	16.41	18.13	17.05	20.91	13.66	17.72	16.73	27.95
Infantile Death-rate per 1000									
-	43.52	189.31	119.56	119'04	218.31	241'37	153.58	174'19	184°41
Total Deaths	130	205	85	88	108	38	82	<b>7</b> 9	815
Total Births	193	338	109	126	142	58	137	155	1258

The following Diagram compares graphically the fluctuations which have taken place during the last ten years in the Birth-rate, Death-rate and Infantile Mortality rate in the Borough.



The Upper Curve represents the Birth-rate.

The Lower ,, Death-rate.

The Red ,, ,, Infant Mortality in tens per 1000.

The curves illustrate in a remarkable way the well-known correspondence in the fluctuations of the Birth-rate and Death-rate.

It must be understood that the figures which represent units in the case of the general Birth-rate and Death-rate represent tens in the case of the Infantile Mortality rate. I have adopted this arrangement for convenience and ease of comparison.

The increase in both the ordinary and Infantile Death-rate is unsatisfactory. There is no doubt that climatic conditions have played a part in causing the deaths from Diarrhœa in the case of artificially fed infants, and the deaths from Measles and Whooping Cough, which existed in epidemic form, are the other causes for the increased Death-rate.

It must be remembered that, owing to a considerable overestimation of the population during the later years of the last decade, the figures for 1910 are not reliable; the figures for 1911 were corrected by the Census returns previous to the Report being published.

VITAL STATISTICS.—COMPARED.

Name of Town.	Population.	Birth-rate.	Death-rate,	Zymotic Death-rate.	Pulmonary Tuberculosis Death-rate.	Infantile Mortality per 1,000 Births.
LEIGH	45,000	27.95	18°11	3.77	1.24	184
Bolton	183,879	21.4	15.4	1.83	0.83	142
Bury	59,159	20.06	15.23	1.64	1.01	141
Burnley	109,021	22.8	16.8	0.34	0.96	174
Colne	27,106	20.03	11.84	1.36	0.20	99
Lancaster	41,667	19.66	14.19	0.77	0.92	96
Liverpool	756,553	29.8	18.0	2'19	1.2	132
Manchester	731,556	25.64	15.77	1.03	1.42	129
Rochdale	93,420	20.74	15.35	0.82	1,10	106
Salford	234,975	26.5	16.3	1.0	r <b>.</b> 4	143
St. Helens	99,460	32.19	18.96	3.74	1,00	155
Wigan .	91,573	27.78	18.42	3.04	0.88	179



#### SECTION B.

Sanitary Circumstances of the District.

#### SANITARY CIRCUMSTANCES OF THE DISTRICT.

#### WATER SUPPLY.

The water supply of the central portion of the Borough now appears to be quite satisfactory. By arrangement with the Corporations of Manchester and Liverpool a constant supply is maintained for the central that is the urban portion of the Borough; in fact, with the exception of a few outlying farms and adjacent cottages supplied with wells, the whole of the population has access to a constant supply of good water. The storage reservoir is situated about three miles outside the Borough, and is considered by the Water Engineer to be sufficient and satisfactory for its purpose.

Since the water has been systematically treated to reduce its plumbo-solvent action, the percentage of lead found on analysis is almost imperceptable and not a danger to the consumer. Chemical and bacteriological examinations have been made from time to time, and the water is reported in every instance to be satisfactory for domestic purposes.

Samples of the water from the private wells in the rural area of the Borough were analysed in 1912. A number were found to be contaminated and not fit for domestic purposes. These were reported to the Health Committee, who appointed a Sub-Committee to deal with the matter.

An analysis of the water taken from the hot-water supply in several houses shews the presence of lead in quantities sufficient to be a danger to the individual, if used in the preparation of food, etc., so that in no case should the hot-water supply be used for the purpose. The practice of weighting copper (?) cylinders with lead is most objectionable and should be made a penal offence; for, in addition to defrauding the purchaser, the risk to the consumer (should the hot-water supply be used in food preparation) is a most serious one.

#### SEWERS.

The whole of the urban portion of the Borough is sewered and drained. There is no separate system for the surface water, so that the whole is carried to the Sewage Farm by five main sewers, known as

The Joint Sewer
Pennington High Level Sewer
Pennington Low Level Sewer
Bedford Sewer (High Bridge)
Bedford Sewer (Duke Street)

The dry weather flow is estimated at  $1\frac{1}{2}$  million gallons daily. The average flow is estimated at 2 million gallons daily.

In some districts of the Borough trouble has been experienced with both the sewers and drains owing to subsidence due to mining operations.

A systematic testing of drains during the year at households associated with cases of Diphtheria and Enteric Fever shewed that 81·16 per cent. of drains tested were defective. This percentage is a high one. The examinations shewed faulty workmanship in days gone by to be a frequent cause of the conditions found; subsidence only played a secondary part.

#### RIVERS AND STREAMS.

Several small streams run through the Borough. Water from the mines is turned into the streams, as well as some sewage pollution from districts outside our own area. The matter has already engaged the attention of this Authority. In certain parts of the Borough some householders previously used a portion of one stream as a "tip"; after notices had been served this was discontinued. Certain portions of the stream have been cleansed.

The Landside ditches which empty into the streams have been under consideration during the year with a view to the prevention of the sewage contamination, which undoubtedly exists.

#### THE SEWAGE WORKS.

The treatment of the sewage for the district is carried out by a Joint Board known as the Leigh and Atherton Joint Sewerage Board. The Works are situated at the Sewage Farm, in the Borough of Leigh, and, with the exception of one district in the Borough, the sewage flows by gravitation to the Works by means of five sewers. There are three

pumping stations within the Borough for the purpose of passing the sewage into the main sewers. Total amount of sewage treated daily, about 2 million gallons average flow; dry weather flow,  $1\frac{1}{2}$  millions.

The sewage is treated chemically by milk of lime and iron sulphate, and passed into precipitation tanks with a total tank capacity of over 2,000,000 gallons. These are worked on the continuous system, and are cleaned out as often as possible. The tank effluent is then passed partly on to the land and partly on to filters, flowing by gravitation on to the land and pumped on to the filters. The area of land laid out for the treatment of sewage is about 112 acres, the remainder is farmed in the ordinary way, and used for tanks, storm beds, filters, etc. Total area of estate, 229 acres.

The filters are six in number, with a diameter of 100 feet and an average depth of 8 feet. The filters are worked continuously, one filter being rested for one day of 24 hours per week. At the present time it is proposed to reduce the period of rest to 12 hours, so that all the filters may be used during the day time when the greatest amount of sewage is dealt with. The total quantity of sewage treated on the filters in dry weather is about 1,380,000 gallons per 24 hours, or 100 gallons per cubic yard. The average amount of sewage treated by land filtration daily, about  $\frac{3}{4}$  million gallons.

The sludge is pressed and disposed of to the farmers.

Crops of Italian rye-grass, mangolds and cabbages are grown on the land.

The effluent from the Sewage Works appears to be satisfactory.

#### CLOSET ACCOMMODATION.

During the year 1913, 341 privies have been converted into water closets. The number of conversions would have been greater but for the fact that the loan for this purpose was all spent, in consequence, during the later months of the year, the work was suspended. The Authority contemplate asking for an additional loan for the purpose of finishing the work. About 800 privies still exist and need converting into water closets.

The following table gives the number of privies, ashpits and water closets up to 31st December, 1913:—

Water Closets	• • •	• • •	7249
Waste Water	Closets	• • 0	861
Privies	• • •	• • •	776
Pails	• • •	· • •	5
Dry Ashpits	• •	• • •	3655
Wet Ashpits	• • •		468
Ashbins	• • •	• • •	943

#### SCAVENGING AND HOUSE REFUSE.

The following statement gives the total number of ashpits and cost of emptying same:—

Total Number of Ashpits, Bins and Pails		5071
Number of Ashpits emptied	• • •	60852
Number of Loads removed	• • •	6736
Weight of Refuse removed: 11142 tons, 15	cwts.	2 qrs.
Cost of emptying each Ashpit per annum	: 5s.	2 '86d.
Cost of emptying each Ashpit	• • •	$5\frac{1}{4}$ d.

The scavenging of the principal streets is quite satisfactory, but similar attention should be given to the back streets.

There is an urgent need for a general substitution of ash-bins in place of the old open ashpit, which, in my opinion, is only a slightly lesser evil than the privy midden.

# SUMMARY OF INSPECTIONS AND GENERAL SANITARY WORK FOR THE YEAR ENDED 31ST DECEMBER, 1913.

Nuisances reported to Cor	nmittee	• •	•••	• • •	426
Nuisances abated			• • •	• • •	407
Number of Dwelling-hous	ses inspected	under Sec.	17, Hou	sing	
and Town Planning A	ct, 1909		• • •	• • •	147
Number of Dwelling-hous	ses unfit for	human habit	ation		52
Closet Accommodation: I	Privies Conv	erted	• • •	* * *	341
Number of Ashpits and A	shbins empt	ied		• • 5	60852
Common Lodging-houses-	Visits	• • •	• • •	• • •	133
Houses Let in Lodgings-	-Visits	• • •	• • •	• • •	73
Vans and Tents	Number of	Inspections	• • •	- · · ·	45
Workshops and Workplace	ces	, ,	• • •	• • •	205
Offensive Trades		,,	• • •	• • •	303
Slaughter-houses		,,	• • •	• • •	741
Dairies and Cowsheds		,,		• • •	169
Milk-shops		, ,	* * *	• • •	107
Smoke Abatement—Numb	per of Obser	vations		• • •	37
Schools Inspected	• • •	• • •	• • •	• • •	117
Ice Cream Makers—Num	ber of Inspe	ctions	• • •	• • •	103
Pig-keepers	,,		• • •	• • •	97
Bake-houses	,,		• • •	• • •	179
Nightsoil and House Refu	se removed-	-tons			11142
Canal Boats Inspected	• • •	• • •	• • •	• • •	46
Unsound Food condemned	d and destro	yed—lbs.	. • •	•••	5382

#### FACTORIES.

As you know, the Factory Inspections are carried out by H.M. Inspector. When called upon by the Inspector to do so, we attend to the sanitary arrangements in connection with Factories.

#### WORKSHOPS.

There are 121 Registered Workshops and 50 Bakehouses in the Borough.

The Health Department is responsible for the inspection of Workshops and Workplaces. The work has been systematically carried out by the Inspectors, and in cases where Females only are employed the services of the Health Visitor have also been utilised.

The provisions required by the Act are carried out, and the condition of the Workshops is reported to be generally satisfactory.

During the year 687 inspections have been made, 13 written notices have been sent.

There have been no prosecutions.

Later in this report is a table shewing the work done during the year in connection with the Factory and Workshops Act.

#### MILK-SHOPS, COWSHEDS AND DAIRIES.

There are 61 Cowsheds on the Register.

- ,, 8 Milk-shops and Dairies.
- ,, 68 Purveyors of Milk.

The whole of these have been regularly inspected during the year. 276 visits have been made.

Speaking generally, the Cowsheds were found to be in a good condition; in a few cases there is an inclination to interfere with the ventilation and light, the idea being to promote warmth. This is a great mistake from a sanitary point of view.

It was the exception to find any steps taken to groom the cows before milking, and in many cases the personal cleanliness of the milkers, and particularly of the hands, were apparently not thought about.

Many of the dairies attached to the farms visited were of a poor type and not suitable for the purpose.

In view of the fact that Mr. John Burns' Milk Bill was likely to be put upon the Statute Book, no very drastic steps have been taken to alter the condition of the existing dairies. This Bill has now been dropped, so that in the near future something will have to be done to improve the conditions of the dairies. The whole subject of milk supply and regulations for carrying on the trade need the attention of the Legislature.

The Milk-shops in the Borough are inspected regularly and are reported to be in a satisfactory condition.

No epidemic during the year has been traced to the milk supply.

92 samples of milk have been analysed.
6,, were found to be adulterated.

Six samples of milk have been examined bacteriologically for the presence of Tubercle and also for germs from dirt. None shewed the Tubercle Bacillus—all shewed the presence of dirt.

#### COMMON LODGING-HOUSES.

There are three registered common lodging-houses in the Borough. These are regularly inspected, the bye-laws are carried out, and the general condition is satisfactory. With regard to a certain class of tenements which are supposed to be houses let in lodgings, in my opinion these are just common lodging-houses, but they are not registered. I propose to bring these houses into line during the next year; if the houses are suitable and the owners also suitable persons they may be registered as common lodging-houses; if not suitable, the practice of letting lodgings in these houses will have to be conducted on other lines or discontinued.

#### VANS AND TENTS.

There are two stationary vans in the Borough used as permanent residences.

These are satisfactory, the necessary sanitary accommodation being provided.

With regard to the vans and tents at the Fair time, no complaints were received during the past year.

To accommodate the occupiers at Fair time, a stand-pipe for water is supplied, and the sanitary accommodation is arranged for with private householders.

#### SMOKE ABATEMENT.

Thirty-seven observations were made during the year. No case exceeded the time-limit allowed for black smoke. Several complaints were made of this nuisance during the year. In my opinion the time allowed (of six minutes per half-hour) is too long.

#### BAKEHOUSES.

There are 50 on the register, one of which is an underground bakehouse.

179 inspections have been made.

These are inspected regularly, the bye-laws are enforced, and at the present time they are reported to be in a satisfactory condition.

#### SLAUGHTER-HOUSES.

There are 22 on the register—17 registered and 5 licensed.

741 inspections have been made.

Since the alterations carried out a few years ago, these premises have been maintained in a satisfactory condition. The bye-laws are carried out, and, with a few exceptions in regard to lairage, may be considered satisfactory.

The situation of some of these premises is most unsuitable for the purpose, and the existence of so many private Slaughter-houses, situated in various parts of the Borough, make it an impossibility for all the meat killed to be adequately inspected. Some regulations are required for the slaughtering of animals for food. At the present time slaughtering may be carried out at any hour of the day or night, and by persons who may not always be properly qualified to do such work. The question of erecting a Public Abattoir has been raised from time to Personally, I should welcome one for Leigh, but, as we are situated at the present time, I think it would serve no useful purpose, because during the year the number of animals slaughtered in the Borough has greatly decreased, and the extra vigilance of the Inspectors has caused more slaughtering to be carried on outside our own boundary, in preference to within the Borough; more dead meat from Birkenhead and other large centres is now sold, and so long as meat may be conveyed from one place to another without any restriction or supervision, so long will a Public Abattoir in Leigh fail in its objects. opinion, the State should tackle this question of meat and meat inspection. The whole question of food and its preparation should, in my opinion, be taken in hand by the State and proper regulations be The question of food poisoning is an urgent matter and needs to be dealt with; it is much more serious and extensive than it is thought to be. The time is quite ripe for the whole question of food supplies, food preparation and food inspection to be considered, and proper regulations formulated.

#### FOOD AND MEAT INSPECTION.

Great attention has been devoted to this work. 741 visits have been made for the purpose of inspecting meat, but—owing to the large area of the Borough, the situation of the various private Slaughter-

houses, the fact that slaughtering may be carried on at any hour (as mentioned above)—it is impossible under the present conditions to devise any system by means of which all the meat killed could be adequately inspected. However, during the year a total weight of 5,382 lbs. has been destroyed as being unfit for human consumption.

#### OFFENSIVE TRADES.

There are 10 on the Register.

During the year 253 inspections have been made. The Fat Melting Works in Union Street has now been closed, and so an intolerable nuisance, inimical to the Borough, has been done away with. It is with satisfaction I mention this fact owing to the opposition and difficulties met with.

# PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS AND REGULATIONS.

No. and character of such premises and occupations:—

3 Common Lodging-houses, 61 Cowsheds, 8 Milkshops and Dairies, 22 Slaughter-houses, 10 Offensive Trades, and 2 Vans.

#### ACTION TAKEN.

Under the Bye-laws and Regulations in force in the Borough, during the year it has not been necessary to take any legal proceedings. The Bye-laws have been enforced, and amongst other improvements obtained may be classed the voluntary closing of the Fat Works.

Under section 17, sub. section 7, of the Housing and Town Planning Act, it has not been necessary to take any action owing to the fact that no such rooms exist.

#### SCHOOLS.

Full particulars relating to the Medical inspection are given in the School Medical Officer's report.

The Health Department Inspectors visit regularly; nuisances are reported and notices served as on ordinary property owners.

#### HOUSING.

The Housing problem is now being seriously taken in hand by the Health Committee.

Plans for 100 new houses to be erected by the Corporation have been passed, and a small scheme on the lines of Town Planning has been accepted by the Local Government Board and a loan granted for the purpose of allowing the Corporation to erect houses for the working classes.

Owing to the scarcity of houses in the Borough other schemes for building houses for the working classes are contemplated; one for the erection of 200 houses is now under consideration at the present time.

During the year systematic work under the Housing and Town Planning Act has been carried out; but, owing to the shortage of houses in the Borough, this work has been restricted to the worst type of houses; for these Closing Orders have been asked and obtained.

In order to avoid increasing the distress and overcrowding, wherever possible to alter, re-construct or improve derelect property, the opportunity has been given in preference to a Closing Order.

The undoubted scarcity of houses has caused overcrowding in certain parts of the Borough. We have definite knowledge of this, but under the circumstances have failed to remedy the evil.

At the present time it is hardly possible to carry out the Housing and Town Planning Act as thoroughly as one could wish without causing distress and hardship to the poorer members of the community. The best has been done under the circumstances.

The following table shews the work done during the year under the Housing Acts:—

ACTION TAKEN IN 1913:— No. of dwelling-houses inspected under Sec. 17 of the Housing and Town Planning Act .. 147 considered unfit for human habitation ... 52 representations to Authority with a view to making Closing Orders... Closing Orders made ... 51 dwelling-houses in which defects were remedied without making Closing Orders.. 87 put into a fit state of habitation after " making Closing Orders... 13 demolished Nil 23



## ANNUAL REPORT

OF THE

## INSPECTOR OF NUISANCES

FOR THE

YEAR ENDED DECEMBER 31st, 1913.

Health Department, 1914.

To the Chairman and Members of the Health Committee.

GENTLEMEN,

I beg to submit to you my Annual Reports on the Removal of Nightsoil and House Refuse; the working of the Canal Boats Acts, 1877 and 1884; the Sale of Food and Drugs Act, 1875 to 1907; the Destruction of Unsound Food; Infectious Diseases; and Summary of Nuisances dealt with during the year ended December 31st, 1913.

I am, Gentlemen,

Your obedient Servant,

EDWIN JACKSON,

Inspector of Nuisances.

#### REMOVAL OF NIGHTSOIL AND HOUSE REFUSE.

The work has been carried out under the supervision of the Health Department and the results have been most satisfactory.

The workmen (except the Drivers) are engaged and paid by the Committee, each man's wages being at the rate of 25s. per week, with a week's holiday a year, for which he is paid.

The cost of Team Labour is 8s. 6d. per day for man and horse, and 1s. 3d. per ton is paid for the removal of refuse within certain prescribed areas. At present, the horses and drivers are supplied by Contract, and consequently the drivers, who are paid by the Contractors, are not under our control; but the Health Committee have under consideration the advisability of providing their own team labour

During the year, 341 privies have been converted into waterclosets, consequently we have a much greater quantity of dry refuse to remove, which will again be increased in the coming year.

There are now only 776 privies in the Borough, the majority of which are under notice for conversion, and I have no doubt that the greater portion of these will be completed during the ensuing year.

The following table gives the number of Privies, Ashpits, Water-Closets, etc., in the respective Wards:—

WARDS.	Pails.	Wet Ashpits.	Privies.	Dry Ashpit	Ash s. Bins.		Water Closets	•	Waster water Closets	A Wh	Wet shpit eelou	s A ts.Wh	Dry shpits eelouts.
St. Paul's	. 2	146	309	226	38	• • •	587		18	• • •	25		40
St. Mary's	2	25	49	1102	316	• • •	2067		509	• • •	4	• • •	51
Lilford		6	19	351	115		1003		73	• • •	I	I	39
St. Thomas's.		17	69	401	78	• • •	986		58	• • •	16	I	OI
St. Joseph's	• • •	25	87	276	40		760		59	• • •	17	• • •	85
Hope Carr	• • •	50	86	138	149	• • •	387		24	• • •	37	• • •	32
Etherstone	I	32	60	354	126	• • •	847		17	• • •	7	• • •	44
St. Peter's		54	97	282	81	• • •	612	• • •	103	• • •	6	• • •	33
Total	5	355	776	3130	943	• • •	7249	• • •	861	і	13	5	25

The following statement gives the total number of ashpits and the cost of emptying same:—

Total Number of Ashpits, Bins an	d Pails	• • •	• • •	5071
Number of Ashpits Emptied	• • •			60852
Number of Loads removed	• • •		• • •	6736
Weight of Refuse Removed	11,142	tons,	15 cwts.,	2 qrs.
Cost of Emptying each Ashpit per	annum	• • •	5s.	2.86d.
Cost of each Emptying of Ashpit	0 0 0 30	• • •	• • •	5¼ d.

The actual cost of removing the refuse was as follows:—

							£	s.	d.
Team Labour	• • •		• • •		er.	• • •	821	4	I
Manual Labour	• • •		• • •	• • •		• • •	468	Ι2	9
Spades, Brushes,	etc.			• • •		• • •	18	Ю	7
Supervision	• • •			• • •		• • •	20	О	0
	т	`otal					£1328	7	
	1	Otai	• • •	• • •		• • •	Z 1320	/	5

During the year, 6736 loads of refuse were removed, the total weight being about 11,142 tons 15 cwts. 2 qrs., and the cost 3s. 11.32d. per load, or 2s. 5.14d. per ton.

The amount of ashpit refuse delivered at the Destructor Works was 8572 tons, 5 cwts., 2 qrs., compared with 8973 tons, 18 cwts., in the preceding year.

The remaining 2750 tons, 10 cwts., were removed to the tip on the Sewage farm or disposed of to farmers.

### CANAL BOATS ACTS, 1877 AND 1884.

During the year, 46 Canal Boats were inspected, and with few exceptions were found to be clean, well kept, and in good repair.

The Boats inspected were registered to receive 127 persons—123 in the after-cabins and 4 in the fore-cabins.

The number of persons found on the Boats at times of inspection was 49, viz.:—46 males and 3 females.

The infringement of the Acts and Regulations were as follows, viz.:—

Eight Boats the cabins required re-painting.

Eight Boats the cabins required repairing.

Three Boats in bad condition required overhauling throughout.

Two Boats the certificate did not identify the owner.

Fourteen Boats have been put in thorough repair and re-painted.

There has been no necessity for the instituting of legal proceedings, as in each case the owners, upon having their attention drawn to the infringements, have as early as possible remedied the defects complained of.

There were no cases of Infectious Disease on the Boats.

I have no infringements of the Acts and Regulations to report with respect to Registration, Notification of Change of Master, Certificates, Overcrowding, Separation of Sexes, Cleanliness, Ventilation, Provision of Water Cask, Removal of Bilge Water, Notification of Infectious Disease, Admittance of Inspector.

I estimate the number of Boats on the Register which can reasonably be believed to be in use, or available, at 145.

No new Boats have been registered during the year, and in no case has fresh registration been rendered necessary by structural alterations in Boats previously registered.

FOOD AND DRUGS ACTS, 1875 TO 1907.

Acting on the instructions of the Health Committee, no samples under the above Acts have been taken by this Authority.

The County Authority, being the responsible Authority for carrying out the provisions of the Acts, have submitted the following statement of samples taken during the year ended December 31st, 1913, viz.:—

Butter 26, Lard 22, Cheese 29, Shrimps 1, Cream 1, Pepper 15, Margarine 12, Coffee 13, Ground Ginger 6, Mustard 9, Milk 92.

The whole of the samples with six exceptions, which were of Milk, were genuine or passable.

Proceedings were instituted against the owners of the nongenuine samples and convictions were obtained in each case.

The penalties imposed were 21s. and costs in two cases; 45s. and costs in two cases; £ 10 and costs in one case; and in one case the costs were imposed.

### UNSOUND FOOD CONDEMNED AND DESTROYED.

Beef	• • •	• • •	3076 lbs.
Mutton	• • •	• • •	56 ,,
Pork		• • •	540 ,,
Fish		• • •	700 ,,
Fruit	• • •		770 ,,
Rabbits	• • •	• • •	160 ,,
Geese and Turk	eys	• • •	35 ,,
Tinned Fruit	4 6 0		45 ,,
	Tatal		
	Total		5382 ,,

#### INFECTIOUS DISEASES.

During the year 172 cases of Infectious Diseases have been notified, of which 43 were Scarlet Fever, 29 Enteric Fever, 21 Erysipelas, 56 Diphtheria, 6 Puerperal Fever, 16 Ophthalmia Neonatorum, and 1 Poliomyelitis.

Of this number, 22 cases of Scarlet Fever, 19 cases of Enteric Fever, and 14 cases of Diphtheria were removed to the Sanatorium.

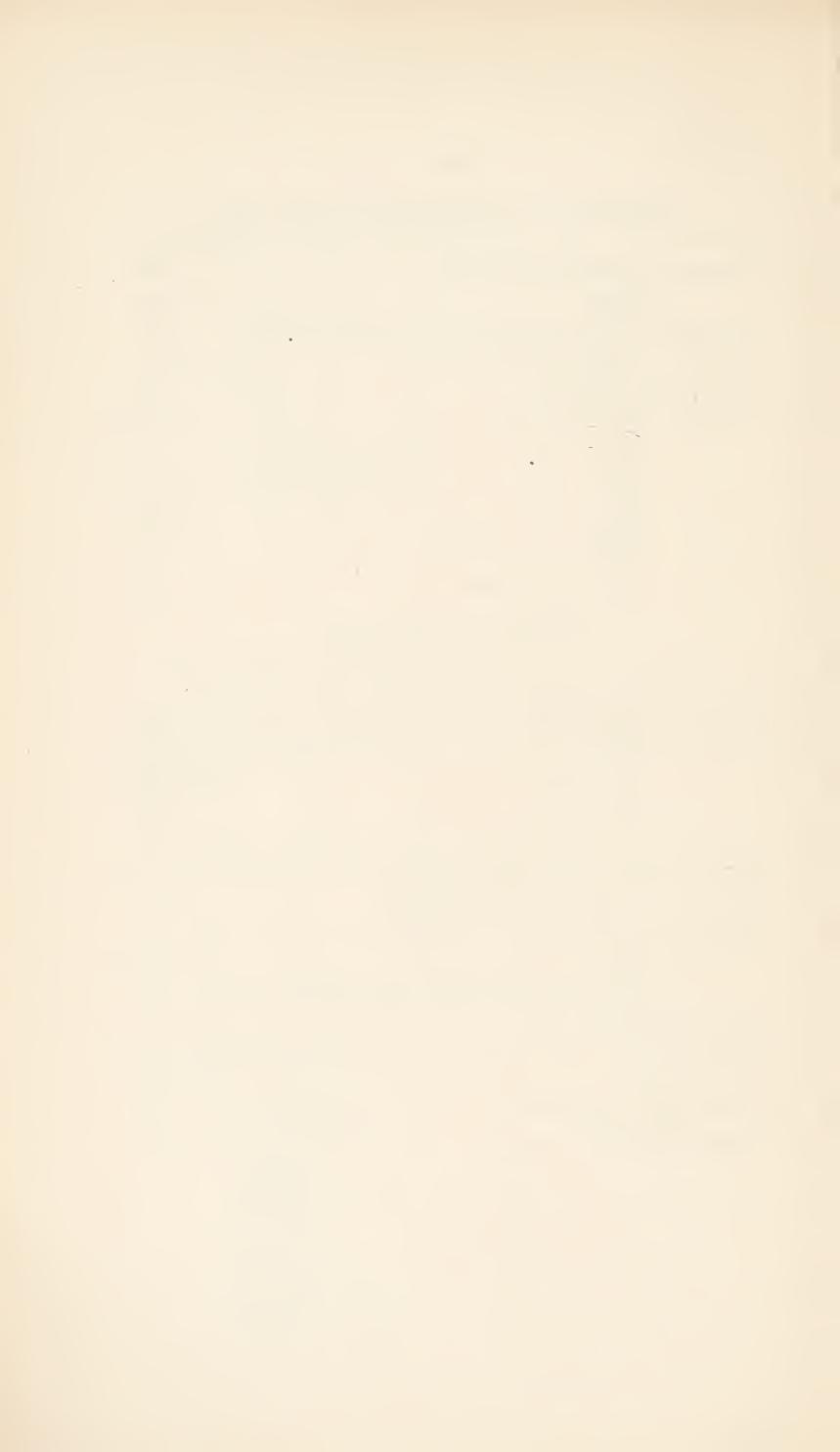
The deaths at the Sanatorium from this district were :—Enteric Fever 4.

During the year 170 houses and 3 schools have been disinfected after the following, viz.:—

Scarlet Fever	• • •	4 • •	• • •	46
Enteric Fever	• • •	• • •	. • •	27
Diphtheria		• • •	• • •	44
Phthisis	• • •	• • •	• • •	44
Erysipelas		• • •	• • •	6
Mumps			• • •	I
Poliomyelitis	• • •	• • •	• • •	I
Puerperal Feve	r	• • •		3
Measles		•		Ţ

# SUMMARY OF NUISANCES FOR 1913.

Nuisances reported to	Committee		• • •	426	
,, Abated .	• • • •	• • •		407	
Notices and Letters ser	rved on Owners	and Occupiers		931	
Number of Ashpits and	d Bins emptied	• • •	6	50852	
Canal Boats Inspected	. •••	• • •	• • •	46	
Weight of Beef destro	yed	• • •		3076	lbs.
,, Mutton ,	,	. • •		56	,,
,, Pork ,	,	• • •	• • •	540	,,
,, Fruit ,	•••	• • •	• • •	770	, ,
,, Fish ,,	• • •	• • •	• • •	700	,,
", Rabbits ",	•••	• • •	• • •	160	, ,
,, Geese and	Turkeys	• • •	• • •	35	, ,
,, Tinned Fru		v • •	• • •	45	, ,
The following Insa	Ť	ons have been de			_
Defective House-drains		• • •	• • •	511	
,,	• •	• • •	• • •	234	
,, Sink-pipes .		• • •	• • •	71	
,, Water-close	ts	• • •	• • •	641	
, ,	• • • • • • • • • • • • • • • • • • • •	• • •	• •	337	
	d down		• • •	9	
Water-closets substitu			• • •	341	
Deep wet Ashpits raise	ed and cemented		• • •	172	
Defective Spouting .	•	<b>4 4</b> 2	• • •	264	
,, Roofs .	•••	• • •	• • •	139	
,, Pavements,	Channelling and	Insanitary Yard	ls	157	
Houses Repaired .	• • •	••.	• • •	161	
Filthy Houses .	•••	• • •	• • •	49	
Damp Houses .	•••	• • •		157	
Insufficiently Ventilate	ed	• • •		63	
Ashpits Repaired .	••	• • •	• • •	233	



# SECTION C.

# Sanitary Administration of the District

# STAFF.

FRANK WEBB	Medical Officer of Health
E. JACKSON	Chief Sanitary Inspector
T. TICKLE	Assistant Sanitary Inspector
W. T. FROST	Assistant Sanitary Inspector
G. YATES	Clerk
NURSE CULL	Health Visitor

# SUMMARY OF INSPECTIONS AND GENERAL SANITARY WORK.

Nuisances reported to (	Committee	• • •		• • •	• • •	426
Nuisances abated		• • •	• • •		• • •	407
Number of dwelling-hou and Town Planning			Sec. 17	Housing	• • •	147
Number of dwelling-hou	ses unfit fo	r human	habitatio	on	• • •	44
Closet accommodation:	Privies—c	onversion	ns	. • •	• • •	342
Number of ashpits and a	shbins em	ptied	•••	• • •	• • •	60852
Common Lodging-house	svisits	• • •	• • •	• • •		133
Houses let in lodgings-	-visits		• 0 4		• • •	73
Vans and Tents	—numbe	r of inspe	ections	• • •	• • •	45
Workshops and workpla	ces	,,		• • •	• • •	205
Offensive trades		, ,		• • •	• • •	303
Slaughter-houses		,,		• • •	• • •	741
Dairies and cowsheds		, ,		• • •	• •	169
Milk-shops		,,			• • •	107
Smoke abatement—num	ber of obse	ervations	• • •	\ • •	• • •	37
Schools inspected	• • •	• • •	• • •	• • •	• • •	117
Ice cream makers—num	ber of insp	ections	• •	• • •	• • •	103
Pig-keepers	,,		• • •	• • •	• • •	97
Bakehouses	, ,		• • •	• • •	• • •	179
Nightsoil and house refu	ise remove	d—tons		• • •		11142
Canal boats inspected		• • •	•••	• • •	• • •	46
Food and Drugs	Аст—					
Analyst report—number	of samples	s found to	be adul	terated	• • •	6
Unsound food condemne	ed and dest	troyed—II	bs.	• • •		5382

#### TABLE C.

#### COUNTY OF LANCASTER.

# SUMMARY OF MEDICAL OFFICER'S REPORT FOR 1913

#### URBAN DISTRICT OF LEIGH.

Medical Officer of Health: Frank Webb. Salary, £350.

Inspector of Nuisances: EDWIN JACKSON. Salary, £190.

- What is the character of the Hospital accommodation? For Smallpox: Isolation Hospital. For other Infectious Diseases: Isolation Hospital.
- Is it Joint or otherwise? Joint with Atherton, Tyldesley, Golborne and Rural District.
- Number of beds available for your District? For Small-pox, 32; for other Infectious Diseases, 128; used as required.
- Number of cases removed to Hospital from your District? Small-pox, nil; Enteric Fever, 19; Diphtheria, 14; Scarlet Fever, 22. Total 55.
- Deaths in Hospital of patients from your District. From what causes? Scarlet Fever, o; Enteric, 4; Diphtheria, o.
- How is Disinfection carried out? Houses: Fumigation. Number of houses disinfected, 170; Schools, 3. Apparatus used for Clothing, Bedding, &c. (steam or otherwise)? Steam Disinfector. Where is apparatus situated? Destructor Works.
- If apparatus at a Hospital is available, is it used for the disinfection of Clothing, Bedding, &c., of Patients not removed to the Hospital? No.
- If not, please state how disinfection of Clothing, &c., in these cases is carried out? By Steam Disinfector, situated in Borough of Leigh.
- Are any diseases not specifically mentioned in the Act notifiable (for instance, Measles, Whooping Cough, Diarrhæa, Chicken Pox, Opthalmia, Neonatorum, &c.)? If so, what are they? Ophthalmia Neonatorum, Cerebro-Spinal Fever, Poliomyelitis.

Diseases specially prevalent? Epidemic Diarrhœa. Period? Late summer and autumn.

Any Schools closed? No. If so, for what disease?

Number of special reports made under Art. XIX. (15 and 16) Sanitary Officers' Order, 1910? Nil.

Bacteriological Examinations. Number and nature of specimens examined! Tuberculosis 128, Enteric 23, Diphtheria 57, Milk 5, Other Specimens 15. Total 228.

Arrangement (if any) made under the Diphtheria Anti-toxin Order, 1910?
Anti-toxin is supplied free of charge by Local Authority.

"The Housing of the Working Classes Acts, 1890 to 1909":-

Has your Authority determined the procedure to be adopted for the inspection of your District as required by Article 1 of the Regulations? Yes.

Has your authority prepared, as required by Article 1 (3), a list of dwelling-houses, the early inspection of which is desirable? Yes.

Has your Authority designated an officer to undertake the special inspection of houses and to keep the records stipulated by Article 2? If so, what officer? Yes; M.O.H. and Inspectors

Have the necessary books, forms, &c., for keeping the required records been obtained? Yes.

Action taken in 1913:—

No. of Dwelling-houses inspected under Sec. 17 of the Act of 1909? 147.

- ,, Dwelling-houses considered unfit for human habitation? 52.
- Representations to Authority with a view to making Closing Orders? 52.
- " Closing Orders made? 51.
- ,, Dwelling-houses in which defects were remedied without making Closing Orders? 87.
- "Dwelling-houses put into a fit state of habitation after making Closing Orders? 13.
- ,, Dwelling houses demolished? None.

Is there a deficiency of housing accommodation. If so, where. Yes. St. Paul's, St. Peter's, Etherstone, St. Mary's Wards.

From where is the Water Supply obtained? Liverpool Corporation.

What is its condition? Satisfactory.

Possibilities of contamination?

Is it subject to your inspection? Yes.

Is Scavenging and Removal of House Refuse carried out satisfactorily?
Yes.

How performed (by Sanitary Authority, Contract or Occupiers of Houses)? By Sanitary Authority under direction of Sanitary Staff.

How is the Refuse disposed of? Has a Destructor been provided? 170 tons weekly by Destructor, the rest tipped on Sewage Farm.

Sewage Disposal Works. Method of treatment? Bacteria Filter beds.

What is the character of the Drainage System? Satisfactory.

Drain Testing, Flushing, &c.? Carried out by Sanitary and Borough Surveyor's Department.

Action taken with regard to the Pollution of Streams? No action taken.

Canal Boats: Number Inspected? 46. Number of infringements of Acts? 35.

What is the condition of the Bakehouses? Good.

,, Slaughterhouses? Good. Has a Public Abattoir been provided? No.

,, Lodging-houses? Good. Are they Registered? Yes.

What is the sanitary condition of the Schools? Satisfactory.

Dairies, Cowsheds and Milkshops—

Are they periodically inspected? Yes. What is their condition? Cowsheds in good condition; Dairies fairly good; Milkshops fairly good.

Have Regulations been made under the Order of the L.G.B.? Yes?

Are they enforced? Yes.

Amount of air space in cubic feet required for each cow? 600 cubic feet.

Number of Cowkeepers? 61. Number on Register? 61.

Number of Dairymen or Purveyors of Milk (other than Cowkeepers)?

8. Number on Register? 8.

Action taken (if any) as to Tuberculosis Milk? Nil.

Total amount of Food seized as unfit for Human Consumption? 5382lbs.

Number of Carcases and parts of Carcases condemned for Tuberculosis? 6.

Number of Legal Proceedings, and result? Nil.

Department of Inspector of Nuisances—

Number of Notices served? 931. Nuisances remedied? 407.

Number of Legal Proceedings taken and result? Nil.

Closet accommodation of the District-

Number of Privy Middens? 776. Pail Closets? 5.

Fresh Water Closets? 7249. Waste Water Closets? 861.

Number of Privy Middens converted during 1913? To W.C.'s, 342; To Pails, &c., nil.

Number of Pail Closets converted to W.C.? Nil.

Does Council contribute towards the cost of either privies or pail closets, or both? If so, how much? Yes, one-third cost.

Smoke-

Number of Observations? 37.

Number of Legal Proceedings taken and result? Nil.

What is the time limit allowed for the emission of black smoke per hour? 12 minutes.

#### Has the Authority adopted—

- "The Infectious Disease (Prevention) Act, 1890"? Yes.
- "The Public Health Acts Amendment Act, 1890"? Yes.
- "The Public Health Acts Amendment Act, 1907"? Yes.
- "The Notification of Births Act, 1907"? Yes.

Has a Health Visitor been appointed? Yes.

Notable Sanitary improvements during 1913:—Housing improvements under Housing and Town Planning Act; Conversion of Privies; Offensive Trades (Fat Melting Works, closed); Systematic testing of drains in connection with Enteric and Diphtheria cases.

Chief Sanitary requirements of District:—Further Conversion of Privies.

Attention to drains. Scavenging of the back and side streets adjoining the principle thoroughfares. Substitution of Ash Bins in the place of Ashpits.

#### INFECTIOUS DISEASES HOSPITAL.

The Infectious Diseases Hospital for the Borough of Leigh is under the control of the Leigh Joint Hospital Board, and is for the combined districts of Atherton, Golborne, Leigh Borough, Leigh Rural District and Tyldesley.

The number of beds available for the whole district are .—For Small Pox, 32 beds; Other Infectious Diseases, 128 beds.

The cost of maintenance of patients in Hospital to the Leigh Corporation for the year ending 30th September, 1913, was £6765s. 1d., being an average cost per patient per day of 5/11.49d.

In addition to the above, the general precept for 1913-14 was  $\pounds_{1,567}$ .

The following table shews the number of infectious diseases notified in the Borough during the year, with the number of cases removed to the Infectious Diseases Hospital for isolation and treatment:

	No. of Cases notified.	N re	o. of Cas emoved to Hospital.	es No d	o. of Cas ischarge cured.	es No d	of Deaths in ospital.
Diphtheria	56	• • • • • • • •	14	• • • • • • • • •	14	• • • • • • • • •	
Erysipelas	2 I			• • • • • • • • •		• • • • • • • •	
Scarlet Fever	43	• • • • • • •	22	• • • • • • • • •	22	•• ••••	
Enteric Fever	29		19	• • • • • • • •	15	• • • • • • • •	4
Puerperal Fever	6		, -	• • • • • • • •			
Ophthalmia Neonatorun	ı 16					• • • • • • • •	
Acute Poliomyelitis	I					• • • • • • • • •	

# ADMINISTRATION OF LOCAL ACTS AND GENERAL ADOPTIVE ACTS IN FORCE.

LEIGH CORPORATION ACT, 1903.

The following Acts have been adopted:-

Baths and Washouses Acts, 1879.

Private Street Works Act, 1892.

Libraries Act, 1892.

Public Health Acts (Amendment) Act, 1890 (Part II. to V.)

Housing of the Working Classes Act, 1890 (Part III.)

Infectious Diseases (Prevention) Act, 1890.

Museum and Gymnasiums Act, 1891.

Public Health Acts (Amendment) Act, 1907-

Part V. (whole)

,, X. ,,

,, II. Sections 22, 30 and 33.

,, III. ,, 34, 36, 37, 49, and 51.

,, IV. ,, 55, 56, 63, 64, and 65.

Notifications of Births Act, 1907.

The following sections in the local Act have been repealed:—

Sec. 151.

- ,, 167 (so far as relates to Sec. 34 of the Act of 1907).
- ,, 210.
- ,, 211.
- ,, 212.

#### REPORT OF PUBLIC ANALYST.

The County Authority administrates the Food and Drugs Acts.

# BACTERIOLOGICAL EXAMINATIONS MADE IN 1913.

The following table shews the bacteriological work done during the year. This work is of great value to the community. It is not only valuable to the patient and medical man in attendance, but it enables the Medical Officer to have a better control over the infectious diseases, cases suitable for removal to the Hospital, and also over the control of infectious diseases in the elementary schools:—

Number of specimens of sputum examined for the Tubercle Bacillus 128 giving positive results 39 ,, giving negative results 89 ,, blood specimens examined for Enteric Fever ... 23 found to be positive for Enteric Fever... 12 ,, negative for Enteric Fever. ΙI ,, ,, specimens examined for Diphtheria ... 57 found to be positive Diphtheria 30 ,, negative Diphtheria 27 5 ) ,, ,, of milk examined for Tubercle Bacillus 5 ,, Other specimens 15

The whole of the work is done by the Medical Officer of Health, in a small laboratory in the Medical Officer of Health's room. The cost for materials during the year only amounts to  $\pounds_4$  3s. 6d., so that very valuable work is being carried out at a very small cost.



# SECTION D.

Prevalence of and Control over Acute
Infectious Diseases.

The following diseases are now notifiable in the Borough of Leigh:—

Small-pox
Scarlet Fever
Diphtheria and Membranous Croup
Erysipelas
Enteric Fever
Typhus Fever
Puerperal Fever
Cerebro Spinal Fever
Polio-myelitis
Ophthalmia Neonatorum
Continued Fever
Cholera
Plague
Relapsing Fever
Tuberculosis

The number of cases notified under the Infectious Diseases (Notification) Act was 172, compared with 209 in the previous year.

These were made up as follows:—

Diphtheria	• • •	• • •		• • •	56
Erysipelas	• • •		• • •	• • •	2 I
Scarlet Fever		• • •	• • •	• • •	43
Enteric Fever	• • •		• • •	• • •	29
Puerperal Fev	er	• • •	• • •	• • •	6
Ophthalmia N	eonato	rum	• • •		16
Polio-myelitis					I

In addition to these, 111 cases of Pulmonary Tuberculosis were notified, and 56 cases of other forms of Tuberculosis, making a total of 167 cases of Tuberculosis notified.

The cases of Tuberculosis are dealt with more fully later in this Report in a section devoted to this disease.

#### SMALL-POX.

The Borough has again been free from this disease during the past year.

#### MEASLES.

This disease existed in epidemic form in the early part of the year. It was responsible for 34 deaths, compared with 11 in 1912.

The fatal cases occurred at the following age-periods:—

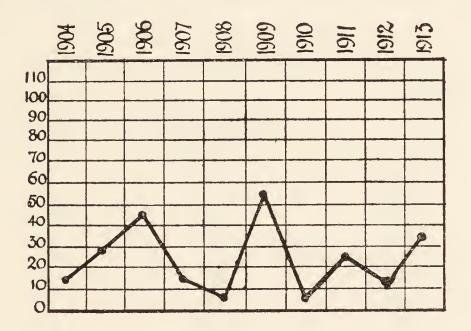
Nine under 1 year

Ten over 1 and under 2 years

Thirteen over 2 and under 5 years

were over 5 years

The following diagram shows the number of deaths which have occurred from this cause during the past ten years:—



#### WHOOPING COUGH.

There have been 13 deaths from Whooping Cough certified during the year, compared with 11 in the previous 12 months.

Five of these children were under one year.

Unfortunately, both Measles and Chicken-pox are looked upon by the majority of parents as anything but serious diseases, and, in consequence, the same care and attention is not given to children suffering with these diseases as in the cases of other infectious diseases—the result is that the percentage of deaths in any outbreak is always a high one, usually caused by the serious complication of Acute Bronchitis or Pneumonia. I wish to impress upon parents that both diseases are most serious, particularly in the case of infants and young children, and the utmost care should be taken of patients suffering with either disease.

#### ERYSIPELAS.

Number of cases noting	fied	• • •	• • •	• • •	• • •	21
Number of cases remo	oved to Hos	pital for tre	eatment	• • •	• • •	0
Number of cases treat	ted at their	own home	• • •		• • •	2 I
Number of deaths in	Hospital	• • •	• • •	• • •	• • •	0
Number of deaths at	own home	• • •		• • •		0

#### Distribution of cases in Wards :-

St. Paul's.	St. Mary's.	Lilford.	St. Thomas's.	St. Joseph's.	Hope Carr.	Etherstone.	St. Peter's.	Total.
4	2	O	3	2	I	5	4	2 I

#### Table for 10 years:—

		No. Notified.		Deaths.
1904	• • •	4 I	• • •	5
1905	• • •	37		2
1906		36	• • •	2
1907		48	• • •	О
1908		33	• • •	О
1909		33	• • •	О
1910		45		О
1911		32	• • •	3
1912		32	• • •	2
1913	• • •	2 I	• • •	0

No special comment is necessary, except that the number of cases notified is below the average for the last 10 years and that no deaths occurred. The mortality figure in this disease is greatly influenced by the age of the person attacked. Both the very young and old people being more likely to succumb to this disease than those at any other age-period.

#### POLIO-MYELITIS.

1

Number of cases notified ...

Numb	er of cas	es remov	ed to Ho	spital fo	r Trea	atment	• •		0	
Numb	er of cas	es treated	d at their	own ho	me	•	• • •	• • •	I	
		iths in Ho	^	• • •			• • •	• • •	O	
Numb	er of dea	iths at ov	vn home		• •		• • •	• • •	0	
Distribution of cases in Wards:—										
St. Paul's.	St. Mary's.	Lilford. T		St. Joseph's.	Hope Carr.	Etherst	one.	St. Peter's.	Total.	
О	I	0	0	0	0	0		O	I	
	No ca	CER	EBRO			EVER.				
		ОРНТ	THALMI	A NE	ONAT	ORUM	•	د		
Numb	er of cas	es notifie	d	* * *	• •	•	• • •	• • •	16	
Numb	er of cas	es remov	ed to Ho	spital fo	r Trea	tment		• • •	О	
Numb	er of cas	es treated	l at their	own ho	mes	•	• • •	• • •	16	
Numb	er of con	nplete rec	overies		• •	•	• • •	• • •	16	
Numb	er of cas	es of par	tial blind	lness		•	• • •	• • •	О	
Numb	er of cas	es of com	iplete bli	ndness	• •	•	. • •		I	
Distrib	oution of	cases in	Wards:	<del></del>						
St. Paul's.	St. Mary's.	Lilford. T	St.		Hope Carr.	Ethersto	one.	St. Peter's.	Total.	
5	4	I	I	I	O	I		3	16	
Table	for 4 ye	ars:—								
		1910	• •	•	• • •	3				
		1911	• •	•	• • •	3				
		1912	• •	•		IO				
		1913	• •	•	• • •	16				

This is a preventible disease. It has been estimated that the education and training of a blind child is a cost to the community of nearly £300. So that, apart from the humanitarian point of view, it is of the utmost importance from the economic aspect that all possible means be taken to control these cases.

regularly, and in all she paid 64 visits; owing to her vigilance and the instruction and assistance given, all the cases with one exception made complete recoveries. One case has resulted in blindness. The case in which blindness resulted did not come under our care until too late. I anticipate, with early notification and the work of the Health Visitor, that cases of blindness resulting from this cause will in the future be a very rare occurrence.

#### PUERPERAL FEVER.

Number of cases notified		• • •	6
Number of cases removed to Hospital for Treatment	• • •		I
Number of cases treated at their own home	• • •	• • •	6
Number of deaths in Hospital	• • •	• • •	0
Number of deaths at own home	• • •	• • •	3

#### Distribution of cases in Wards:-

St. Paul's.	St. Mary's.	Lilford.	St. Thomas's.	St. Joseph's.	Hope Carr.	Etherstone.	St. Peter's.	Total.
3	2	0	0	0	0	I	0	6

#### Table for 10 years:—

	No	. Notified	•	Deaths.
1904	• • •	2	• • •	2
1905		3	• • •	2
1906	• • •	3		3
1907	• • •	4	• • •	I
1908		3	• •	2
1909		2		I
1910		4	•	О
1911		6		2
1912		3		I
1913	• • •	6	• • •	3

Six cases were notified with three deaths. The nursing arrangements for these cases is most unsatisfactory; the County Authority suspend the midwife attending, and do not allow her to continue to attend the patient suffering with Puerperal Fever.

#### ENTERIC FEVER.

Numb	er of cas	ses notifi	ed			• • •	• • •	29
Numb	er of cas	ses remov	ved to Ho	ospital fo	r Treatm	ent		19
			ed at thei					10
	er of dea				. •			
			wn home				* * *	4
				•••	• • •	* * *		2
Distrib	oution of	cases in	n Wards	•—				
St. Paul's.	St. Mary's.	Lilford.	St. Thomas's.	St. Joseph's.	Hope Carr. Etl	nerstone.	St. Peter's.	Total.
4	4	5	5	2	I	I	7	29
Table	for 10 y	ears :—						
	•			No. Notifi	ed.	Deaths	•	
		1904	• • •	35	• • •	I 2		
		1905	• • •	37		ΙΙ		
		1906		50	• • •	· 14		
		1907	5 0 0	40	• • •	8		
		1908	• • •	24	• • •	7		
		1909		25	• • •	6		
		1910		18	• • •	3		
		1911	• • •	23	• • •	8		
		1912	• • •	18	• • •	6		
		1913		29	• • •	6		

29 cases notified with 6 deaths—the percentage of deaths is more satisfactory than in the past two years.

As it is almost impossible for these cases to be properly nursed at their own homes, and as the danger of infection to other members of a household is so great, an endeavour is made to obtain the removal of all the cases to the Hospital. Where this is not done, special precautions are taken at the homes—a pail with disinfectants is provided for the excreta, and instructions are given to other members of the household. In all these cases the drains are systematically tested, and every endeavour is made to locate the cause of origin.

The drains were tested at 26 of the cases, and 25 of these or 96.15 per cent. were found to be defective.

As a result of investigation of the cases of Enteric Fever, I am convinced that infected shell-fish—mussels—is playing a greater part in the causation of this disease than is generally known. A bacterio-

logical examination of several samples of mussels shewed sewage contamination. The incidence curve for this disease corresponds with the mussel season, and in a great number of cases there is evidence of consumption of raw mussels previous to the illness developing.

# DIPHTHERIA (Including Mem. Croup).

Numbe	r of cas	es notifi	led		• • •		• • •	56
Numbe	r of cas	es remo	ved to Ho	ospital fo	r Trea	tment	• • •	14
			ed at thei				• • •	42
			Hospital	• • •	• • •	* * *		О
			wn home		• • •	<b>♦ • (</b>	• • •	4
	ution of		n Wards	•			C)	
St. Paul's.	St. Marv's.	Lilford.	St. Thomas's.	St. Joseph's.	Hope Carr.	Etherstone.	St. Peter's.	Total.
2	17	II	3	0	4	Ι2	7	56
Table	for 10 y	years :-		No. Notif	ied.	Deaths	5.	
		1904	• • •	16	• • •	4		
		1905	• • •	25		9		
		1906		16		. 4		
		1907	6 0 0	27	• • •	5		
		1908	• •	75	• • •	22		
		1909	• • •	58	• • •	13		
		1910		40		ΙΙ		
		1911	• • •	50		14		
		1912	• •	48		8		
		1013		56		4		

56 cases notified, with 4 deaths. The majority of these cases were of a mild type. Antitoxin, which is now in general use for this disease, is supplied free of cost by the local authority to suitable cases.

It is doubtful if these cases can be satisfactorily treated at their own homes. Small cottage homes are not ideal places to treat such patients, which in the severe cases require, in addition to careful nursing, skilled treatment of the throat and nose. The drains are systematically tested in all cases where a notification is received.

The drains were tested at 43 of the cases, and 31 of these or 72.09 per cent. were found to be defective.

I regret to say that in many of these cases faulty sanitary conditions have been discovered at the homes,

#### SCARLET FEVER.

Number of cases notified	* * *		43
Number of cases removed to Hospital for treatme	nt		22
Number of cases treated at their own home			2 I
Number of deaths in Hospital		• • •	O
Number of deaths at own home	. • •		I

### Distribution of cases in Wards :-

St. Paul's.	St. Mary's.	Lilford.	St. Thomas's.	St. Joseph's.	Hope Carr.	Etherstone.	St. Peter's.	Total.
5	14	4	4	4	3	3	6	43

#### Table for 10 years :-

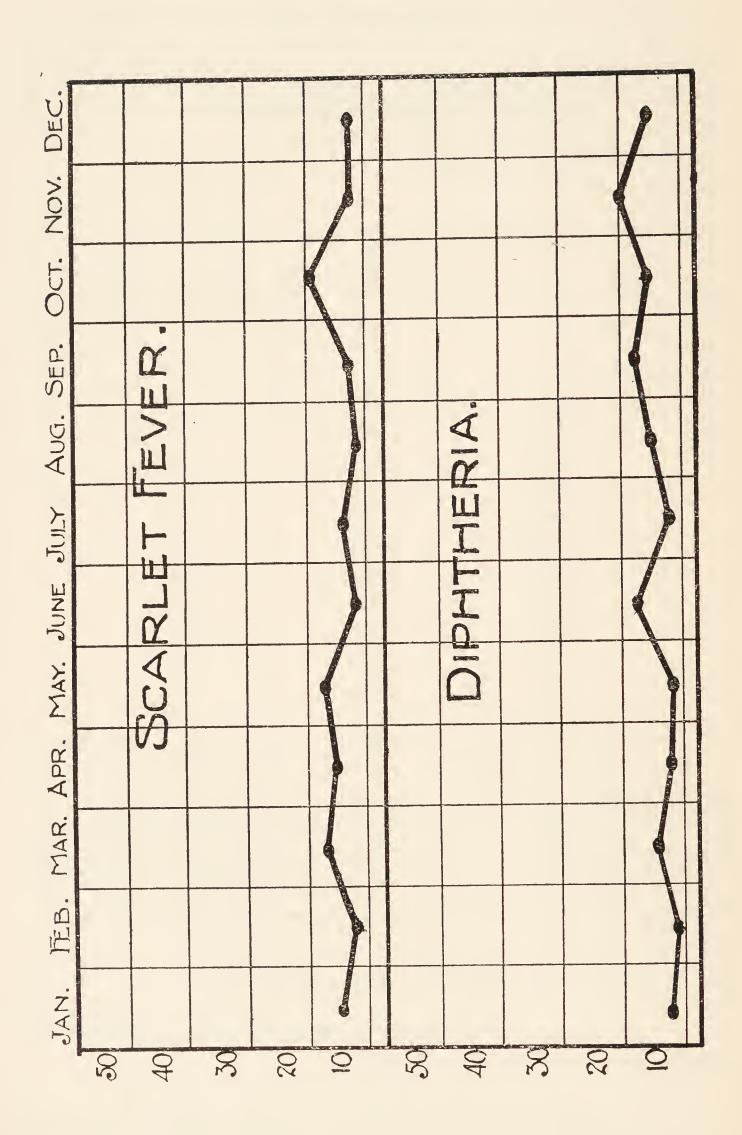
	N	o. Notified.		Deaths.
1904		693		28
1905	• • •	418		ΙΙ
1906	• • •	335	• • •	9
1907	• • •	249	• • •	10
1908		147	• • •	4
1909	• • •	291	• • •	6 .
1910	• • •	247	• • •	9
1911	• • •	126	• • •	2
1912	• • •	96		5
1913	• • •	43	• • •	I

43 cases notified, with I death. This is the smallest number of cases notified during the last 10 years. The number of deaths shew that the disease was not of a severe type. Half the cases were treated in their own homes. In my opinion, where the conditions are suitable, the cases may safely be treated at home, and this practice is now being carried out. Should an epidemic of any severity occur, it will be necessary to revert to the old order, and to isolate in Hospital as previously.

#### DIARRHŒA AND ENTERITIS.

112 deaths were certified to be due to Diarrhæa, compared with 22 in the previous year and 154 in 1911.

Of these 78 deaths were those of infants under one year, of which a detailed report is given later in this report under the heading of Infant Mortality.



#### INFECTIOUS DISEASES HOSPITAL.

During the year 55 cases have been removed to the Infectious Diseases Hospital for isolation and treatment, viz.:—

- 22 cases of Scarlet Fever—all recovered.
- 19 cases of Enteric Fever—4 cases proved fatal.
- 14 cases of Diphtheria—all recovered.

This, I think, may be considered to be quite a satisfactory resultwhen compared with the previous year's returns.

The cost of maintenance of patients in Hospital to the Leigh Corporation for year ended 30th September, 1913, amounted to £676 5s. 1d., being average cost per patient per day of 5s. 11.49d.

In addition to the above the general precept for 1913-14 was  $\pounds_{1,567}$ .

# LANCASHIRE TOWNS COMPARED FOR INFECTIOUS DISEASES.

County Boroug	ed ion ldle	Small-pox		arlet	Diph	theria.	Ent Fe		Pu I	erperal Fever. ]	Erysip	elas.
and Borough and Urban Districts.	s griffe	-	Cases.		_	Rate.		Rate.	Cases.	Rate.	Cases.	Rate.
LEIGH	44,600		43	.0.96	56	.1.25	29	.0.65.	6	0.13	.210	0.47
Barrow-in- Furnes	s 64,589		232.	3.59.	175.	2.71.	3	.0.05	. 4	0.06	.69	1.07
Blackburn	133,560.		268.	. 2.01.	80.	0.60.	31	.0.23	. 8	.0.06	.91	0.68
Blackpool	59,831.		104.	1.74.	45	0.75.	16	.0.27	. 6	.0.10	.24	0.40
Bolton	182,524.		209.	1·15.	124	0.68.	56	.0.31	. 4	0.02	.71	0.39
Bootle	71,153.		151.	2:12.	39	0.55.	12	.0.17	. 3	0.04	.37	0.52
Burnley	108,012.		206.	1:91	178.	1.65.	20	.0.19	. 6	0.06	l75	1.62
Bury	59,106.		299	. 5.06.	68.	1.15	8	.0.14	. 6	0.10	.28	0.49
Liverpool	752,021.	30.00	2228.	2:96	1030.	1:39	112	.0.16	.52	.0.07 7	767	1.02
Manchester	723,531.	10.00	3901.	5:39.	732.	1.01	327	.0.45	134	.0.19 4	137	0.60
Oldham	148,839.	80.05	938.	6:30.	93.	0.62.	14	.0:09	.11	.0.07	121	0.81
Preston	117,631.		777.	6.61.	280.	2:38.	47	.0.40	. 7	.0.06	108	0.92
Rochdale	92,529.		576.	6.23	62	0.67.	14	.0.05	7	.0.08	.68	0.73
St. Helens	98,159.		736.	7:50.	161.	1.64.	26	.0.26	. 5	.0.05	.76	0.77
Salford	232,734.	40.02	1235.	5:31.	335.	1:44	112	.0.48	.17	.0.07 2	203	.0.87
Southport	70,444.		89.	1.26.	40.	0.57.	4	.0.06	. 2	.0.03 .	.35	0.50
Warrington	73,215.		240.	3.28.	108.	1•48.	29	0.40	. 7	.0.10	.54	0.74
Wigan	90,042.		· 73.	0.81.	34.	0:38.	97	.1.08	. 6	.0.07	.57	0.63
Accrington	45,282.		124	2.74.	16.	0:35.	23	.0.51	. 2	.0.04	.28	0.62
Ashton- under-Lyn	e 45,342.		227.	5:01.	17.	0:37.	13	.0.29	. 5	.0.11	.26	.0:57
Darwen	40,613.		28	0.69.	26.	0.64.	2	.0.05	. 1	.0.02	.15	.0.37
Eccles	42,947		68	1:58.	34.	0.79.	10	.0.23	. 5	.0.12	.22	.0:51
Lancaster	41,553	—	52	1.25.	19.	0.46.	15	.0:36	. 4	.0:10	.22	.0.53
Nelson	40,361		42	1.04.	18.	0.45	3	.0.07	. 2	0.05	.22	.0.55
Stretford	44,093		104	2:36.	. 29.	0.66	10	.0.23	. 1	.0.02	.13	.0.29

SECTION E.

Tuberculosis.

#### TUBERCULOSIS.

During the year 167 cases of Tuberculosis have been notified, viz., 114 cases of Pulmonary Tuberculosis and 53 affecting other parts of the system. In nearly every case of Pulmonary Tuberculosis bacteriological examination of the sputum has been made, the exceptions being those cases dying immediately after, or even before the notifications were received by the Medical Officer of Health.

During the year 56 cases of Pulmonary Tuberculosis died, giving a mortality rate of 1.24 per 1000.

Ten of the cases were persons dying outside the Borough, but belonging to the district.

Eleven deaths were due to Tuberculosis other than the Pulmonary form, making a total of 67 deaths from one or other form of Tuberculosis, and giving a death-rate of 1.48 for the disease.

Owing to the absence of the provision of Sanatoria and other benefits for the treatment of non-insured persons, the hardship in a few cases has been very real, and private charities have been utilised whenever possible for the benefit of these cases.

The Local Authority have offered to disinfect the houses in all cases where death from Pulmonary Tuberculosis has taken place. During the year a fair number of such houses have been disinfected. With more enlightenment in the future it will be the exception for a house so affected not to be disinfected.

During the year 44 houses infected with Tuberculosis have been disinfected.

At the same time we have endeavoured by means of visits, by instruction, by pamphlets and literature, and by the supply of disinfectants, etc., to control as far as possible the extension of Pulmonary Tuberculosis.

The total number of cases of Tuberculosis notified in 1913 was 167, 94 males and 73 females, causing 56 deaths. This gives a percentage of deaths for the total population of 0'12, and death-rate from Tuberculosis of 1'48.

The number of notifications of these being 227 (one case may be notified more than once according to domicile) made up as follows:— Cases notified previous to February 1st, 1913 ... Form A, Primary Notifications 146 B, Notifications by School Medical Officer 6 of entrance into Sanatorium, C, Hospital, etc... 22 of discharge from Sanatorium, ,, D, Hospital, etc... 36 Transferred to other districts 8 Number of Insured Persons notified to be suffering with Tuberculosis (Males 32, Females 19) ... ... 51 Number of Insured Persons suffering with Pulmonary Tuberculosis who have applied to the County Insurance Committee for benefits ... ... ... 27 Number of Insured Persons suffering with other forms of Tuberculosis who have applied to the County Insurance Committee for benefits ... 1 Number of Insured Persons who have received Sanatorium . . . 18 Number of Insured Persons who have received Domicilary Benefit only 8 Number of Insured Persons who died during the year ... 9 Of the above 167:— 114 cases of Pulmonary Tuberculosis have been notified. Non-pulmonary comprising the following:-Lungs ... Foot ... 114 Ι Glands ... Forearm 19 General Meninges 2 Spine ... Heel 1 Gluteel Region ... Face Ι Hip Joint Neck T.B.Osteo Mylitis Humurus Knee Peritoneum Testicle . . . 4 Ι Upper Dorsal Vertibra Femur Ι Ι Upper end of Tibia Larynx... 167 Ι Skin . . .

Cases visited, 213

Re-visits, 404

# TUBERCULOSIS ORDER.

Occupations of Persons	s Notified :—	•	
Cotton Operative	II	School	27
Pit Brow	2	Hawker	І
No Occupation	13	Spinner	I
Coal Miner	15	Wood-sawyer	I
Maidservant	2	Tenter	2
Housework	19	Publican	I
Weaver	5	Moulder	I
Labourer	7	Not known	50
Boatman	1	Knitting at home	I
Cardroom	I	Cable Works	I
Charwoman	I	Insurance Agent	I
Clerk	I	Piecer	I
Joiner	1		
DEATHS FR		CULOSIS OF PERSO	ONS
	NOTIFIED	IN 1913.	
Occupations :			
Cardroom	I		
	•••	Tenter	I
Cotton Operative	2	Tenter  No Occupation	
			6
Coal Miner	2	No Occupation	6
Coal Miner	2 3 7	No Occupation  Not known	6
Coal Miner Housework	2 3 7	No Occupation  Not known  School	6 11 4 1
Coal Miner  Housework  Labourer	2 3 7 2 1	No Occupation  Not known  School  Weaver  Knitting at home	6 11 4 1
Coal Miner  Housework  Labourer  Joiner	2 3 7 2 1 ined Bacteriol	No Occupation  Not known  School  Weaver  Knitting at home	6 11 4 1
Coal Miner  Housework  Labourer  Joiner  Number of cases exam	2 3 7 2 1 ined Bacteriols of Private (	No Occupation  Not known  School  Weaver  Knitting at home  logically  Organizations	6 11 1 1

#### TUBERCULOSIS.

Distribution of cases in Wards:-

St. Paul's.	St. Mary's.	Lilford.	St. Thomas's.	St. Joseph's.	Hope Carr.	Etherstone.	St. Peter's.	Total.
22	56	23	8	23	2	15	18	167

Table for 10 years :-

	I	No. Notified	•	Deaths
1904		10	• • •	31
1905		3	• • •	40
1906		15		42
1907	• • •	5		38
1908	• • •	6		43
1909	• • •	ΙΙ	• • •	53
1910	• • •	6	• • •	48
1911	• • •	43		59
*1912	• • •	119	• • •	50
1913		167	• • •	56

<sup>\*</sup>First year of compulsory notification of Pulmonary Tuberculosis.

The present means for dealing with these cases of Tuberculosis are inadequate and unsatisfactory. By means of the Health Visitor the best possible has been done. Instructions to patients, and advice to other inmates of the household have been given. Means of isolation we have none, and the danger of infection to others in a household is real.

The provisions of the Insurance Act have somewhat altered the conditions of treatment of these cases, and though it is probably too early to give an opinion of any great value on the working of the Tuberculosis portion of the Act, it is certain that very real hardships and difficulties have arisen.

In my opinion, the present system is wrong. If Tuberculosis is to be prevented—and it must be prevented rather than cured—it is absolutely necessary that the chronic cases, living in small cottage

houses, unable to have a room or even a bed to themselves, should be definitely provided for. Many of the early cases of Pulmonary Tuberculosis now sent to a Sanatorium would, in all probability, make a complete recovery with proper nourishment and decent surroundings, but the chronic case is a real source of danger to others all the time.

One hardship which has repeatedly occurred is that a person put down for Sanatorium benefits has had to wait two or three months before admission, the result being that after a short stay in the Hospital his pecuniary benefit has lapsed (26 weeks expired), and he returns home without any money, has lost his employment, and probably is very little better in health. I think the money benefits for cases of Tuberculosis should be extended for at least 12 months, or longer, on the advice of the Tuberculosis Medical Officer.

The housing of these cases is also playing a very important part in the propagation of this disease, and I am glad to say my Committee are fully alive to the fact, and are doing their best to remedy the existing evils by closing houses unfit for habitation and building others of a modern type suitable for the working classes.

The difficulty of isolating the advanced cases of Pulmonary Tuberculosis cases not admitted to Sanatoria is a very serious one. These cases, as already pointed out, are a real source of danger to other members of the household, and they are a constant source of anxiety to the officials who endeavour to carry out preventive measures.

The chief benefit, I have observed so far, in the case of Sanatoria patients, is the educational value, which is of the utmost importance in the prevention of this disease. These patients, as a rule, carry out the instructions given, and do their best to diminish the risk of infection to others. With patients who have had no Sanatoria treatment it is not so easy to convince them of the danger they may be to others.

I think the dual authority now responsible for the administration of measures for the prevention of Tuberculosis is a mistake. As a rule, dual authority means that neither does the work properly. One authority, the local authority with supreme control, and with further powers than they at present possess to administer the finances set apart

for Tuberculosis—power to isolate cases where necessary; power to assist the individual pecuniarily for a longer period than 26 weeks; and to provide shelters—would, I think, more effectually assist to check Tuberculosis than the present system, which, in my opinion, is unsatisfactory. A large sum of money is now being expended with very poor results.

Some special provision is needed for children—School children and others—suffering with Tuberculosis in its several forms. In some cases it has been possible to provide hospital treatment for those cases requiring surgical treatment, but it has not been possible to obtain Sanatoria treatment for any children suffering with Pulmonary Tuberculosis, and the ordinary Convalescent Homes for children will not admit such cases. The provision of an Open-air School merits consideration, for we have a number of children suitable for such a school—children on the border line of Consumption.



### SECTIONS F AND G.

Means for Preventing Mortality in Child-birth and in Infancy.

Work of the Health Visitor.

Notification of Births Act.

Infant Mortality.

Mothers' and Babies' Welfare Centre.

Ophthalmia Neonatorum.

### THE WORK OF THE HEALTH VISITOR.

The work of the Health Visitor has gone on almost continuously throughout the year. In June, owing to the resignation of Nurse Gallimore, previous to Nurse Cull being appointed, the continuity of the work was broken for a few weeks at the most important time of the whole year.

The work has been arranged into the following classes:-

Notification of births. Visits to houses. Infants' and Mothers' Welfare Clinic.

Ophthalmia Neonatorum cases.

Zymotic Diarrhœa in Infants.

Pulmonary Tuberculosis.

Inspection of Workshops where Females are employed.

Inspection of Midwives. (This duty is carried out by the County Authorities, but we notify them and disinfect when required.)

The following statistics shew the character of the work performed:—

### NOTIFICATION OF BIRTHS ACT.

Total Births	registered in	n the Boroug	h (for the year	r ending		
Dece	ember 31st,	1913)	• • •	• • •		1247
Total Births	notified in E	Borough	• • •	• •		1258
Born living	a •	•••	•••		• • •	1209
Still-born	• • •	• • >	• • •		• • •	49
Premature	• • •	• • •	. • •	• • •		27
Nature of Co	nfinement-	-Normal	• • •		• • •	1082
		Abnormal	• • •		• • •	168
Notified by :-	_					
Medica	al Men	• • •	• • •		• . •	123
Midwi	ves	• • •		• • •		1133
Parent		• • •		• * •	• • •	2
Birth enquiri	es made	1 0 0	^ • •		• • •	1250
Deaths under	rıyear (inc	luding still-b	orn children)	• • •	• • •	281

Condition or Child at	Birth:—				
Healthy	• • •	• • •		• • •	1133
Weakly	• • •			• • •	58
Injured at birth	• • •	a ~	• • •	• • •	4
Congenital defo	rmity	• • •			7
Method of Feeding (w	ithin two week	s of birth):—	-		
Breast fed	• • •	•••			1055
Breast fed (part	aly)	4. 4			20
Artificially fed	• •	• • •	• • •	0 1 0	99
Neglected or im	properly fed		• • •	• • •	1
Long tube bottl		• • •		• • •	IÇ
Number of Deaths un	der i vear:—	••.	• • •	• • •	281
Breast fed			• • •	• • •	65
Artificially fed	•••			• • •	167
Still-born	• • •	• • •		• • •	49
Condition of Home:			•••	• • •	45
C1					
Dirty		• • •	• • •		1122
Nuisances exist	· · · ·	• • •	• • •	• • •	128
	C	• • •	• • •	• • •	<b>7</b> 6
Where Milk is stored:	; <del></del>				
Scullery			• •	• • •	368
Pantry	• • •	• • •	• • •	• • •	738
Dairy	• • •	• • •	• • •	• • •	2
Total Visits to Houses	• • •	• • •	• • •	• •	2282
Re-visits	• • •	• • •		• • •	1032
Mothers extra domesti	cally employed	• • •	• • •	• • •	213
Occupations of Mother	rs extra domes	tically employ	ed :—		
Actress	I	Reeler		І	
Cardroom	23	Screwer	• • •	I	
Charwoman	8	Shopkeepe	r	8	}
Cotton Operative	7	Silk Opera	tive	6	
Domestic Servant	8	Tailoress		I	
Dressmaker	2	Tenter	• • •	20	)
Laundress	3	Teacher	• •	2	
Piecer	I	Waitress	• • •	I	
Pit Brow	14	Weaver	• • •	81	
Rag Collector	2	Washerwo	man	I	
		Winder	• • •	I2	

Period of rest (in bed) of M	lother aft	er confineme	ent:—		
Under 10 days	• •		• • •	• • •	60
Date of return to work afte	r confine	ment :—			
Under 1 month	• • •		• • •	• • •	3
Children reported as delicat	e	• • •	• • •	• • •	58
Number of Children insured	l: Pract	ically all the	Babies visi	ited.	
Sanitary Defects discovered	and repo	orted to Hea	lth Departs	nent	204
Cases for which Nourishme	nt was su	ipplied	• • •	• • •	· I
Indication of Poverty		• • •		• • •	35
Overcrowding	• • •	• • •		• • •	8
Number of Illegitimate Chi	ldren				42

### INFANTS' AND MOTHERS' WELFARE CENTRE.

So far the work carried out at this Centre has been as follows:

During the year, on every Monday afternoon, the rooms at the Old Town Hall used for the School Clinics are opened for the Infants' and Mothers' Welfare Centre. Here babies are brought by the mothers to be weighed. The Medical Officer sees the babies and gives advice when necessary. No treatment is provided, and when a baby is ill it is referred to the family doctor for advice and treatment. The weights are recorded on a card, and these are filed. In cases of poverty dried milk has been supplied gratis, and in a few cases of illness associated with poverty, assistance has been provided by private means; but the idea of the Centre is not to give relief, but to educate and instil into the minds of mothers certain measures and requirements necessary for the proper care and management of the infant.

The Centre, in a modest way, is doing quite good work; it is appreciated by the mothers, and they are grateful for advice given.

Although the Centre has not been advertised in the papers, and is really only known through the Health Visitor's daily work, during the year some progress has been made.

190 babies were entered on the books.

507 visits were paid by infants to the Centre.

6 deaths of babies attending occurred in the 12 months.

Many cases of severe illness associated with diseases of the ailmentary tract recovered.

The above is all very well, as far as it goes, but it does not go far enough. One centre in the middle of the town does not supply the needs for Bedford and Westleigh districts—other centres are required. It is also necessary that the work be put on a proper financial basis, similar to other towns, and it is obvious to anyone who considers the matter that voluntary helpers are required.

In the whole of 1913 the Centre was financed privately, which in a measure restricted the work, particularly the supplying of dried milk and other infant foods.

Voluntary helpers are needed, not only to assist in the visiting, but also to help to run and manage the "cutting out" and making of infant clothes department, which up to the present has not been attempted.

The possibilities of such a Centre are enormous, and although I am somewhat disappointed owing to the difficulties I have met with, I feel thankful that a beginning has been made in the direction of doing something for the infants' welfare.

### OPHTHALMIA NEONATORUM.

Cases of Ophthalmia Neonatorum notified	 16
Visits to Ophthalmia Neonatorum cases	64
Results of Treatment:—	•
Cures (complete)	 15
Partial Blindness (one eye)	0
Blindness (complete)	Т

The Health Visitor has done excellent work in looking after these cases. This is shewn not only by the number of visits paid, but also by the results. In my opinion, this is one of the most important branches of preventive medicine. By early notification and proper treatment carried out regularly and systematically, few, if any, cases of blindness should result.

### PUERPERAL FEVER.

Number of cases noti	fied			6
Number of visits	• • •	. • •	• • •	6
Number of deaths	• • •	• • •		3

### INFANT MORTALITY IN 1913.

An investigation of the figures given by the Medical Officer of the Local Government Board in his Forty-second Annual Report on Infant Mortality for a period of years 1907 to 1910 shews that the Borough of Leigh occupies the following positions with regard to the deaths of infants under one year of age:—

### OF 241 URBAN DISTRICTS COMPARED—

The Borough of Leigh, for this period of years, occupies the twenty-first place of those with the highest infant death-rate.

### IN A COMPARISON OF III SMALLER TOWNS-

Leigh has the highest death-rate of all for infants dying from Bronchitis and Pneumonia.

It has the fourth highest rate for deaths from Diarrhœal Diseases.

- ,, tenth
  ,, ,, under 1 year.

  ,, fourth
  ,, ,, from 1 to 5 years.

  ,, sixth
  ,, ,, from 3 to 6 months.
- ,, fifth ,, ,, from 6 to 12 months.

In the same period for deaths under 3 months old we occupy a normal position, and also for deaths from Prematurity and Congenital Defects.

You will agree that these figures are most unsatisfactory; they are interesting, for they shew that our infant mortality only begins to assume an abnormal condition during the third month and the succeeding months of the infant's life.

I have endeavoured to find the reasons, and, in order to get reliable information, I have investigated the deaths of every child dying under the age of 12 months since January 1st, 1913.

During the year under review 232 deaths of infants under one year of age were notified, giving a rate per 1000 births of 184 as compared with 134 per 1000 in the previous year. This shews an increase due to deaths from Epidemic Diarrhæa. We still have too many infant deaths and compare unfavourably with other similar towns.

The following table gives the Infantile Mortality rates for the last five years:—

		No. of Deaths under 1 year.		Rate per 1000 Births.
1909	,	189	- • •	146
1910		169	• • •	139
1911	* * *	270	• • •	208
1912	• • •	166	• • •	134
1913	4 + +	232	• • •	184

The average for the previous five years was, number of deaths 200, equal to a rate of 157 per 1000 births.

Of 1258 births 42 were illegitimate. Of these 11 died, giving a mortality rate of 261. In the previous year of 20 illegitimate children 5 died, giving a mortality rate of 250 per 1000. The mortality rate for legitimate children in 1913 is 180, as against 132 in 1912.

Of the deaths of infants during the year 27 were attributed to Premature Birth and 25 to Congenital Debility. 78 Infants died from Epidemic Diarrhœa.

The highest birth-rate occurred in St. Paul's Ward, 35.91, and the lowest in Hope Carr, 20.81.

The highest infantile death-rate, 243'52 per 1000 births, occurred in St. Paul's Ward, and the lowest, 119'04, in St. Thomas's Ward.

In the previous year the highest infantile death-rate was 186.04 in St. Thomas's Ward, and the lowest 88.33 in St. Peter's Ward.

The following table gives the number of births, the number of deaths under one year, and the Infantile Mortality rate in each Ward:—

Ward.	I	Births.	Deaths.	Death-rate per 1000 Births.
St. Paul's		193	47	243`52
St. Mary's		338	64	189'31
Lilford		109	13	119.56
St. Thomas's		126	15	119.04
St. Joseph's		142	31	218.31
Hope Carr		58	14	241.37
Etherstone		137	2 I	153.28
St. Peter's		155	27	174.19

Of the deaths occurring since 1st January—227—all have been investigated in detail, and the following information has been obtained.

These deaths, after the first month of life, occur in about equal proportion for each month up to the end of the seventh month; after the seventh month there is an improvement shewn for the following months.

The deaths occurring during the first month of life include all those due to Prematurity, Immaturity, Congenital Defects and Injuries, and are not quite in the same way to be classed as the preventible deaths, such as those which occur later and are due to causes over which there is some control.

Bearing these facts in mind, it is instructive to note that of the 227 infants whose deaths from all causes have been investigated, only 65 were breast-fed; or, put another way, 72 per cent. of the babies who died from all causes were artificially fed.

### CAUSES OF DEATHS UNDER ONE YEAR.

```
Measles ...
                                                = 3.96 per cent.
Whooping Cough
                                            5
                                                            ,,
Abdominal Tuberculosis
                                                = 0.08
                                            2
                                                            ,,
Other Tuberculous Diseases
                                                = 0.04
                                                            ,,
Meningitis (not Tuberculous)
                                                = 0.08
                                                            ,,
Convulsions
                                                = 3.08
                                                           ,,
Bronchitis
Pneumonia (all forms)
Diarrhœa
Enteritis
Syphilis
Suffocation (overlying)
Injury at Birth ...
Congenital Malformations ...
                                              47 = 20.70 per cent.
Premature Birth
Atrophy, Debility and Marasmus
                                           5
                                                           ,,
Other Causes
                                          22
                                               = 9.69
Uncertified
                                               = 0.04
                                                           ,,
```

It will be seen from the above table that—

34 per cent. of the deaths are due to Epidemic Diarrhœa and Enteritis.

22 ,, ,, ,, Acute Diseases of the Respiratory System, Bronchitis and Pneumonia

20 ,, ,, Premature Birth and Congenital Malformation

So that 76 per cent. of our infant deaths are due solely to these causes.

This is not peculiar to Leigh, as the same causes are found to exist, more or less, in most of the industrial centres having a high infant death-rate.

The following table gives the figures and percentages of some of the particulars and conditions found to be associated with the infant deaths investigated:—

### ALL DEATHS UNDER ONE YEAR OF AGE DURING 1913.

```
Registered Deaths under 1 year
                                      ... 232
Transferable Deaths
                                            5
Deaths visited ...
                                      ... 227
                                           65 \times = 28.63 per cent.
Breast-fed
             . . .
                                      ... 109
Bottle-fed (boat-shape bottle)
                                               162 artificially fed
Long tube bottle used
                                           39
                                                =71°36 per cent.
Bottle and breast-fed
                                            5
Spoon-fed
                                            9
                                                =68^{\circ}28 per cent.
                                       ... 155
Presence of flies
Mothers extra domestically employed ...
                                           26
                                                = 11.45
                                                            ,,
Mothers who depute others to
                    nurse their babies...
                                                = 8.37
                                           19
No. of families found on investigating
  227 infant deaths in 1913 in which one
  or more previous infant deaths had
  occurred-
     108 families lost 1 child previously, under the age of 2 years
                       2 children previously, under the age of 2 years
      37
      32
                                                               ,,
               ,,
      13
                       4
                                                               ,,
                                 ,,
               ,,
      12
                       5
                       6.
       3
                                                               ,,
       2
                                                                ,,
               ,,
         family lost
       Ι
                                                                ,,
                                 ,,
                      ΙΟ
Fathers who do not work regularly
                                                = 8.81 per cent.
                                            20
                                                 = 39.64
Indication of poverty
                                            90
 Where Food and Milk is stored—
                        Scullery
                                            68
                                                 = 29.95
                                                             ,,
                        Pantry
                                                 =62.55
                                       ... 142
                                                             ,,
                        Living Room
                                                 = 2.64
                                                             "
                        Shop
                                             I
 Not Town's Water
                                                 = 0.13
                                             3
                                                             ,,
 Lighting and Ventilation—Good
                                       ... 178
                                                 =78.41
                                                 = 8.81
                             Fair
                             Poor
                                                 = 11.80
                                            27
 No. of Houses having 2 rooms
                                                 = 11.80
                                            27
                         3
                             , ,
                                                             , ,
                                                 = 20.26
                                       ... 46
                         4
                             ,,
                                                             ,,
   ,,
                             ,, or over... 148 -65'19
                         5
                                                             ,,
              ,,
   ,,
```

Cleanliness of House	—Good	• • •	113	= 49.77 pe	er cent.
	Fair	• t. •	62	= 27.31	,,
•	Bad		37	= 16.59	,,
Lodgers	• • •		35	= 15.41	,,
Overcrowding	• • •		5	= 2.30	,,
W.C. or Privy—W.C	• •••		192	=84.58	,,
Privy			28	= 12.33	,,
Ashpit or Bin—Ashpit	t	• • •	203	=89.42	, ,
Bin	• • •		16	= 7.04	,,
Proximity of Manure	Heaps of	or Stables	I 2	= 5.28	,,
Rent of House—Unde	er 4/ <b>-</b>	• • •	35	= 15.41	,,
4/- t	to 5/-	• • •	85	=37.44	,,
5/- t	to 6/ <b>-</b>	• • •	73	=32.12	,,
6/- 0	or over		18	= 7.92	, ,
Sanitary Defects	• • /	• • •	76	= 33.48	,,

Investigating each of the three principal causes of infant deaths in fuller detail the following facts are found:—

### EPIDEMIC DIARRHŒA AND ENTERITIS.

Many factors are playing a part in causing infant deaths from this cause. In my opinion the principal one is the artificial feeding of infants.

91 per cent. of the babies who died were artificially fed.

On investigating the causes for so little breast-feeding and the large amount of artificial feeding the following facts were ascertained:

In 20 per cent. of the cases the mothers go out to work, the infants being looked after by somebody else.

Other reasons given were in order of frequency:

Mother has no milk.

Ill-health of mother—mother in hospital.

Trouble with the nipples.

I find it is the custom for most mothers to give the breast, or to attempt to give the breast, for the first few weeks of the infant's life; then, after the end of three or four weeks, from various causes, there is a tendency in these cases to adopt the artificial feeding methods. After this period our infant mortality begins to assume abnormal proportions.

Other facts disclosed are:-

Almost all the deaths occurred in the late summer and early autumn, associated with the hot weather.

In 33 per cent. of these deaths a long tube bottle was used.

In 43 ,, there were indications of poverty.

In 39 ,, no satisfactory place for the storage of food.

91 per cent. of cases were associated with an excessive of flies.

32 ,, shewed sanitary or structural defects in the houses.

53 ,, shewed the general condition and cleanliness of the house to be unsatisfactory.

8 ,, of the houses shewed overcrowding.

39 ,, had unsatisfactory provision for the storage of milk and food.

As shewing the small part the existence of privies have played in this recent epidemic, of the 78 houses examined only 7 had privies; but the existence of open ashpits, which existed in all the other cases, is an evil in all probability just as bad as the midden.

As shewing the class of houses in which these deaths occurred according to rental—

8 per cent. of the houses were rented at under 4/- per week.

31 ,, ,, from 4/- to 5/- per week.

40 ,, ,, from 5/- to 6/- per week.

7 ,, over 6/- per week.

Obviously the factors contributing to these infant deaths from Enteritis and Diarrhœal diseases are:—

- 1. The fact that they are artificially fed (contaminated milk).
- Faulty nature of food, conditions under which it is stored, prepared and administered—long tube bottle, dirty teats, dirty bottles, etc.
- 3. Infection of food by flies, dirt, etc.

- 4. Mothers leaving the care of the infants to others whilst away at work.
- 5. The general condition of the house and surroundings—sanitary and structural defects—presence of ashpits, stables, manure.
- 6. The personal cleanliness of mother and her habits.
- 7. In 43 per cent. of these cases there were indications of poverty. In a small number of cases there was evidence of drink on the part of the mother.

In my opinion the remedies to improve the work of infant life need the careful consideration of the Health Committee.

The Babies' Welcome, previously mentioned, has done a certain amount of good work, but it does not extend far enough. My own idea would be to extend the Clinics into other districts of the Borough—obtain the help of voluntary workers who would be in touch with the mothers and infants in their own homes. By these means infants needing advice would have an opportunity of obtaining it.

The second line of attack must be through the midwives. They must be taught the necessity of instructing the mother with regard to the importance of breast feeding; they must also be taught the methods and hygienic conditions under which the artificial feeding of infants may be carried on with a minimum of risk to the child; and there must be more attention to the personal hygiene of the mothers and the sanitary conditions of the houses.

I fully believe that the housing reforms now being carried out will help, for it is undoubted that overcrowding in the living and bedrooms is a factor in high infant death-rates.

The question of poverty in some cases is a very real one, and in a few instances it has been so acute that the mother who was not able to suckle her baby could not afford to purchase food for her infant.

# DEATHS UNDER ONE YEAR FROM DIARRHŒA AND ENTERITIS, 1913.

Registered Deaths from	n Diarrhœa	•	0		
	and Enterit	1S	•		
Cases visited	• • •	• • •	78		
Breast fed			7	, , ,	
Spoon fed	• • •	• • •	3)	= 3.84 $71 = 53.84$	,,
Boat bottle	• • •		42	71 = 53.84	, ,
Long tube bottle	•••		26]	= 33°33	
Nature of Babies' Artis	ficial Food :—				or = 91.02
Nestle's milk	···		T /7		
Cows' milk		t	•		
Breast fed	• • •		•		
Patent foods		• • •	I 2		
Mothers working away			16	= 20'51 1	per cent.
Number of Children in	_	ally a	.11.		
Sanitary defects discov	vered and repor	ted			
to Health Departn	_		26		
Indication of poverty	* > *		34	=43.581	per cent.
Overcrowding		• •	4		
Privy middens	• • •	• • •	7	= 8.97	,,
Yards partly paved	• • •	• • •	7		
Yards unpaved	• • •	• •	7		
Excessive prevalence of	of flies	• • •	70	91	, ,
Where Milk is stored-	_				
In Pantry	C * 2		47	=60.25	, ,
In Back Kitchen of	or Scullery		23	= 29.48	,,
In Living Room	• • •	c + +	8	= 10.25	, ,
-					

An analysis of the deaths of infants from Bronchitis and Pneumonia shew—

### DEATHS FROM PNEUMONIA.

61 per cent. were artificially fed.

30 ,, associated with poverty.

15 ,, nursed by people other than the mother.

None of these children were taken from their homes to be nursed.

### BRONCHITIS.

42 per cent. were artificially fed.

41 ,, associated with poverty.

In one case only was the infant put out to nurse.

## DEATHS UNDER ONE YEAR FROM PNEUMONIA (ALL FORMS), 1913.

```
Registered deaths from Pneumonia
                                             26
Deaths visited
                                             26
Breast fed
                                             IO
Bottle fed
                                              9
Long tube bottle used
                                              5
                                                   = 19'23 per cent.
Bottle and breast...
                                              I
Spoon fed
                                              Ι
Presence of flies ...
                                             15
Mothers extra domestically employed
                                              I
Mothers who do not nurse their babies ...
                                              3
No. of families found on investigating 227
  infant deaths in 1913 in which one or
  more previous deaths of infants have
  occurred---
                                             17 families
       I under 2 years
       2
                                              3
                                                   ,,
                                              3
       3
               ,,
                                              1 family
      4
       5
                                                   ,,
               ,,
                                                   ,,
Fathers who do not work regularly
                                              I
Indication of poverty
                                              8
                                                  = 30.76 per cent.
Where food and milk is stored—Scullery...
                                              6
                                Pantry ...
                                             18
                              Living room
                                              2
Not Town's water
                                              Ι
Lighting and Ventilation—Good
                                             18
                            Fair
                                              6
                           Poor
No. of houses having 2 rooms
                                              O
                                              3
    ,,
                                              4
                       4
    ,,
               ,,
                                             19
Cleanliness of house—Good ...
                                             20
                       Fair ...
                                              4
                       Poor ...
                                              Ι
Lodgers
                                              4
Overcrowding
                                              O
W.C. or Privy—W.C.
                                             18
                Privy
                                                  =88.46
Ashpit or Bin—Ashpit
                                             23
               Bin
                                              2
Proximity of manure heaps or stables
                                              I
Rent of house—Under 4/-
                                              5
                 4/- to 5/-
                                              5
                 5/- to 6/-
                                             IO
                 6/- or over ...
                                              3
                                              6
Sanitary defects
```

# DEATHS UNDER ONE YEAR FROM BRONCHITIS DURING 1913.

Registered deaths from Bronchitis	. • •	24	
Deaths visited		24	•
Breast fed	• • •	14	=58.33
Bottle fed	- •	6	
Long tube bottle used		2	
Bottle and breast	• • •	2	
Spoon fed	• • •	0	-
Presence of flies	• • •	ΙΙ	
*Mothers extra domestically employed		2	
Mothers who put their babies out to nu		Ι	
No. of families found on investigating			
infant deaths in 1913 in which one			
more deaths of infants had occurred-		- ~	familias
ı under 2 years	• • •	6	families
2 ,,	• • •		"
Gethers who do not work regularly	• • •	2	,,
Fathers who do not work regularly	• • •	4	= 41.66
Indication of poverty Where is food and milk stored—	• • •	10	-41 00
Scullery Scullery		ΙI	
Pantry	< ◆	ΙΙ	
Living room	• • •	0	
Shop		J	
Lighting and Ventilation—Good	• • •	13	
Fair		6	
Poor	• • •	4	
No. of houses having 2 rooms	• • •	Ö	
,, ,, 3 ,,		7	
,, ,, 4 ,,		I	
,, ,, 5 ,, or over		15	
Cleanliness of house—Good		I 2	
Fair	• • •	4	
Bad	• • •	6	
Lodgers	• • •	5	
Overcrowding		О	
W.C. or Privy—W.C	• •	20	
Privy		3	
Ashpit or Bin—Ashpit	• • •	22	
Bin		I	
Proximity of manure heaps or stables	• • •	I	
Rent of house – Under 4/	• • •	3	
4/- to 5/	• • •	I 2	
5/- to 6/	• • •	5	
6/- or over	• • •	2	
Sanitary defects	• • •	I 2	

<sup>\*</sup> No babies are taken from their own home.

### PREMATURE BIRTHS.

Of the 27 deaths from this cause, all of which were investigated, the following facts were noted:—

With one exception, all the cases had a Medical Attendant called in.

25 per cent. of the mothers were extra domestically employed.

37 per cent. were associated with poverty.

# DEATHS UNDER ONE YEAR FROM PREMATURE BIRTH DURING 1913.

Registered death	ns from Pr	emature E	Birth	27	
Deaths visited	• • •	C 3 0		27	
Ages—1 day	· • •	v • •	•••	3	
2 days	\ • •	• • •		3	
3 ,,	• • •		• • •	I	
6 ,,		6 d s	• \ •	I	
13 ,,			• • •	I	
15 ,,	• • •	• • •	• • •	I	
24 ,,	• • •		• • •	1	
4 minute	es	4 V 0		I	
35 ,,	• • •	* * *		I	
3 hours	• • •	• • •		I	
6 ,,	• •		• • •	I	
7 ,,	• • •		• • •	3	`
8 ,,	• • •	> • •	• • •	2	
16 ,,	, • •	• • •	• • •	I	
22 ,,		• • •	<b>. ◆ ●</b>	I	
1 month	• • •	• • •	• • •	5	
Attended by doo		• • •	• • •	26	
Not attended by			• • •	Ι	
*Mothers extra d			ed	7=2	24.92 per cent.
Mothers who ar	~			22	
No. of families premature bit or more previous occurred:—	eths in 191	ız in whi	ch one		
1 under 2	years	• • •	• • •	9 fa	ımilies
2 ,,				6	,,
3 ,,		• • •		6	,,
5 ,,		• • •	• • •	2	,,
6 ,,		« • •	• • •	2	,,
Indication of po	overty	• • •	• • •	IO =	37 per cent.
Overcrowding	• • •	• • •	• • •	I	
Premature 7 mc	onths		• • •	2	
Occupations of employed:—		xtra dome	estically		•
Theatrica	1	• • -	• • •	I	
* J Weaver		• • •	• • •	4	
Theatrica Weaver Laundress Charwom	an			I	

## ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1913 FOR THE BOROUGH OF LEIGH,

On the Administration of the Factory and Workshops Act, 1901, in connection with

FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

## 1.—INSPECTION OF FACTORIES, WORKSHOPS AND WORKPLACES.

Including Inspections made by the Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of				
(1)	Inspections. (2)	Written Notices (3)	Prosecutions. (4)		
Factories	12	5			
Workshops (Including Workshop Laundries)	422	8			
Workplaces	253				
Total	687	13			

## 2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS AND WORKPLACES.

	Numb	er of De	efects.	
Particulars.	Found.	Remedied	Referred to H.M. Inspector.	Number of Prosecutions
(1)	(2)	(3)	(4)	(5)
Nuisances under the Public Health Acts:—*				
Want of Cleanliness	30 - 2	30 2		
Sanitary Accommodation  Sanitary Accommodation  Unsuitable or defective. Not separate for sexes.  Offences under the Factory and Workshop Act:—  Illegal Occupation of Underground Bakehouse (S. 101)  Breach of special Sanitary Requirements for Bakehouses (SS. 97 to 100)  Other Offences  (excluding offences relating to outwork which are included in Part 3 of this Report).	$\frac{5}{2}$	5 2		
Total	39	39		

<sup>\*</sup>Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.



### 3.-HOME WORK.

					CERS' LISTS, S	ECTION 107.			OUTWOR	K IN UNWI ISES, SECTI	HOLESOME ON 108.	OUTW	ORK IN INFI	ECTED
NATURE OF WORK.*				om Employe		Notices served	Prosecu	tions.						105, 110.
-	Sending t	wice in the		Sending o	once in the year.	on Occupiers	1							Prosecutions
(4)	Lists. §	Contr'c-	rkers. § Work-	Lists.	Outworkers. Contr'c- Work-	as to keeping or sending lists.	Failing to keep or permit inspec- tion of Lists.	Failing to send Lists.	Instances.	Notices served.	Prosecutions.	Instances.	Orders made (S. 110).	(Sections 109,110).
(1)	(2)	tors. (3)	men. (4)	(5)	tors. (6) men. (7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Wearing Apparel—  (1) making, &c  (2) cleaning and washing  Household linen  Lace, lace curtains and nets  Curtains and furniture hangings  Furniture and upholstery  Electro-plate  File making  Brass and brass articles  Fur pulling  Cables and chains  Anchors and grapnels  Cart gear  Locks, latches and keys  Umbrellas, &c.  Artificial flowers  Nets, other than wire nets  Tents  Sacks  Racquet and tennis balls  Paper, etc., boxes, paper bags  Brush making  Pea picking  Feather sorting  Carding, &c., of buttons, &c.  Stuffed toys  Basket making  Chocolates and sweetmeats			4											
Тотац	2		4	_				· · ·						

<sup>\*</sup> If an occupier gives out work of more than one of the classes specified in column 1, and sub-divides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class only, but the outworkers should be assigned in column 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

<sup>§</sup> The figures required in columns 2, and 3 and 4 are the total number of the lists received from those employers who comply strictly with the statutory duty of sending two lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be even numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.



### 4.—REGISTERED WORKSHOPS.

	Workshops on the Regist	er (s. 131) a (1)	t he end	of the ye	ar.		Number. (2)
ses of workshops thop bakehouses, trated here.	Workshops Bakehouses	•••				• • •	121 50
Important classes such as workshop may be enumerat	Total number of	Worksho	ops on i	Register	•		171

### 5.—OTHER MATTERS.

Class. (1)	Number. (2)
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Act, (s. 133)	
Action taken in matters referred by H. M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)  Reports (of action taken) sent to H. M. Inspector	9
Other	9
Jnderground Bakehouses (s. 101):—	
Certificates granted during the year	1
In use at the end of the year	

Note.—The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of December, 1904. A further Memorandum, on the Home Work Provisions of the Factory Act, was issued to all District Councils and Medical Officers of Health in October, 1906,



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### TABLE I. VITAL STATISTICS OF THE WHOLE DISTRICT DURING 1913 AND PREVIOUS YEARS. Name of District: BOROUGH OF LEIGH.

			Births.		Total Death	s Registered		le Deaths ‡	Nett I	Deaths belong	ging to the D	istrict.
	Population		l Net		in the l	District.	of Non- residents	of Resi- dents not	Under 1 Ye	ear of Age.	At all	Ages.
Year.	estimated to middle of each Year.	Un- corrected Number.	Number.	Rate.	Number.	Rate.	registered in the District. †	registered in the District.	Number.	Rate per 1000 Nett Births.	Number.	Rate.
I	2	3	4	5	6	7	8	9	10	ΙΙ	12	13
1908	46700 46700	1 308 1 287	1308	28°00 27°55	707 714	15.13	<u> </u>	61 94	209 189	159 146	768 794	16.44 12.00
1900	48000	1214	1214	25.29	631	13.14	ΙÏ	77	169	139	697	14.2
1911	44109 44600	1 276 1 222	1292	29.29	777 588	13.18	23 10	97	270 166	208 134	8 <sub>57</sub> 6 <sub>75</sub>	19.42
1913	45000	1247	647 Males 611 Females	27.95	738	16.4	13	90	232	184	431 Males 384 Females	18.11

Notes.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 some of the corrected rates probably will not be available. The rates should be calculated per 1000 of the estimated gross population. In a district in which large Public Institutions for the sick or infirm seriously affect the statistics, the rates in columns 5 and 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in

In Column 6 are to be included the whole of the deaths registered during the year as having actually occurred within the district.

In Column 12 is to be entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column Deaths in Column 10 are to be similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under I included in the number given in Column 9.

† The Medical Officer of Health will be able from the returns made to him by the local Registrar of Deaths, as well as from the quarterly lists furnished by the Registrar-General, to fill in Column 8 in accordance with the rule in the next paragraph below. The Registrar-General, either directly or through the County Medical Officer of Health, will supply the Medical Officer of Health with the particulars of deaths to be entered in Column 9; and all such deaths must be included in this Column, unless an error is detected, and its correction has been accepted by the Registrar-General. For Column 4 the Registrar-General will furnish to the Medical Officer of Health a Statement of the number of births needing to be added to or subtracted from the total supplied by the local Registrar.

"; "Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, e.g., casuals, must not be included in Columns 8 or 9, except in certain instances under 3 (b) below. The Medical Officer of Health will state in Column 8 the number of transferable deaths of "non-residents" which are to be deducted, and will state in Column 9 the number of deaths of "residents" registered outside the district which are to be added in calculating the nett death-rate of his

The following special cases arise as to Transferable Deaths:—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) must be regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement should be

referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are to be referred (a) to the district of residence, under the general rule; (b) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known; (c) failing this, to the district where death occurred, if known; and (d) failing this, to the district where the body was found.

Area of District in acres (land and inland water) ... 6347

Total population at all ages

Number of inhabited houses

Average number of persons per house.

44109

At Census of
1911.
(cf. Census, vol. V.)

I.  Institutions within the District receiving sick and infirm persons from outside the District.	II. Institutions outside the District receiving sick and infirm persons from the District.	Other Institutions, the deaths in which have been distributed among the several localities in the District.
Leigh Infirmary	Leigh Union Whiston Union Manchester Infirmary St. Mary's Hospital, Manchester Christy Hospital, Manchester Children's Hospital, Pendlebury Elmfield, Anson Road, Rusholme County Asylum, Winwick Prestwich Rainhill Lunatic Hospital, Stockport Etchells, Cheadle Brecon & Radnor Asylum, Talgarth Astley Sanatorium	



TABLE II. CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1913. Name of District: Borough of Leigh.

		CA	Nui ses	ABER Not		ì					L CASES	Notifi	ED IN EA	сн Loc	ALITY.			ital ved ct.
			At A	ges	†-Y	Y ea	ırs.		v.	2	3	4 00	5	6 +	7	8	sases ed to ital.	Hosp remo Distri
Notifiable Disease.	At all Ages,	Under r.	r to 5.	5 to 15	15 to 25.	25 to 45.	45 to 65.	upwards.	St. Paul's Ward.	St. Mary's Ward.	Lilford Ward.	St. Thomas's Ward.	St. Joseph's Ward.	Hope Carr Ward.	Etherstone Ward.	St. Peter's Ward.	Total cases removed to Hospital.	Deaths in Hospital of Patients removed from this District,
Small-pox ;Cholera (C) Plague (P) Diphtheria (including						• • •												
Membranous Croup) Erysipelas Scarlet Fever	21		17 	27 I 29	I	5	6	2	2 4 5	17 2	11	3 3	2	4 I	12 5	7	14	
Typhus Fever Enteric Fever ‡Relapsing Fever (R)					9			I	4	14  4	4  5	4  5	4 2	3  I	3  I	6 7	22  19	  4
Continued Fever (C) Puerperal Fever Cerebro-spinal Meningitis	6					4				2					 I	•••		
Poliomyelitis			 4 8	19	24	 <del>1</del> 9	15.		 14 8	I 42	 14	7	 14	 I		 9		•••
Ophthalmia Neonatorum	16	16		25	12		ı		5	14 4	9 I	I	9		5	9 3		•••
Totals	339	18	42	104	56	91	25	3	45	100	44	24	32	II	38	45	55	4

Notes.—State in space below the name and position within or without the district of the isolation hospital or hospitals, sanatoria or other institutions to which the residents in the district, suffering from infectious disease, have usually been sent, and the name of the authority by whom the hospital is provided.

\* This space may be used for record of other diseases the notification (compulsory or voluntary) of which is in force in

† These age columns for notifications should be filled up in all cases where the Medical Officer of Health, by inquiry or otherwise, has obtained the necessary information.

‡ Specify the disease by initial against the figure.

| These deaths must be included in Table III., whether the hospital is situate within or without the district.

Isolation Hospital or Hospitals: -Astley Sanatorium, near Manchester.



### TABLE III.

### CAUSES OF, AND AGES AT DEATH DURING THE YEAR 1913.

Name of District: Borough of Leigh.

(See Notes at back).

	Causes of D	) EATH			N WH	VETT DE	ATHS AT	THE S	IIN OR	D AGES	OF "R	ESIDENTS DISTRICT	; '' (a).	TOTAL DEATH WHETHER O "RESIDENTS
	I	CAIH.			All Ages. 2	Under 1 Year	under 2 Years	2 and under 5 Years	5 and under 15 Years 6	15 and under 25 Years	25 and under 45 Years	45 and under 65 Years	65 and upwards	OR "NON- RESIDENTS" I INSTITUTION IN THE DISTRICT.
All causes	{Certified (c) Uncertified				813	231	75 	46	40	24	90	153	154	813
Enteric Fe	ver			<u> </u>	6	<b></b>					5	-		6
Small-pox	•••							• • • •				• •	• • • •	0
Measles					34	9	IO	13	2	•••	***		• • • •	•••
Scarlet Fer			• • •		JT			1 J	_	••	•••		• • • • • • • • • • • • • • • • • • • •	34
Whooping			•••		13	5			ı	• • • • • • • • • • • • • • • • • • • •	•••		•••	I
Diphtheria	and Croup				_		4	3			•••	••	• • • •	13
Influenza	croup	• • •	•••	• • •	4	• • • •		_	I	• • • •	•••	•••	• • • •	4
Erysipelas	•••		• • •		3	•••	•••	•••	•••	•••	• • •	I	2	3
	ulmonary Tuk	oerculo	eie)	• • •	 		'''	•••		•••	•••		• • •	
Tuberculos	is Meningitis		′		56	I	2	2	6	9	28	6	2	56
Other Tub	erculous Dise		• •	• • • •	3 8		I	I	I	• • •	• • •	• • • • •	• • • •	38
	dignant diseas		• • •	• • •		2	• •	I	2	2	I	9 • •		8
Rheumatic	Fever		• • •	•• `	30	•••	• • •	• • •			3	20	7	30
		-7\\	• • •	• • •	6	• • •		• • •	I	I		2	2	6
Organia U	. (See note ( eart Disease			• •	10	2	3	4	I		• • •			10
Bronchitis			***		59	•••	I	•••	2		9	32	15	59
	( ( )	• • •	••	• • • •	98	24	9	2	I		5	22	35	98
Other Disa	(all forms)	•••			80	26	18	7	5	2	7	10	5	80
Other Dise	ases of Respi	ratory	Organs	• • • •	2			• • •	2					2
Diarrnœa a	and Enteritis.	. (See	note $(e)$	• • •	112	78	18	7	I	I	I	5	I	112
Appendiciti	s and Typhlit	1S	••		Ι					I				ī
	f Liver	• • •	**;		2	• • •						2		2
Alcoholism			• • •											
Nephritis a	nd Bright's D	isease			18		I	I	I		ı	10	4	18
Puerperal I					3						3			3
Other accid	lents and dise										3			3
~	Pregnancy	and Pa	arturition	ı[	6						6			6
Congenital	Debility and	Malfo	ormation	,										
	including I	Premat	ure Birtl	1	52	52								52
Violent De	aths, excludin	g Suic	ide		34	4	3	I	6	2	9	4	5	34
Suicide			• • •		I						- 1		3	34 I
	ned Diseases				171	28	4	I	7	5	1 2	39	75	171
Diseases ill	-defined or un	knowi	ı							3		39	/5	
					813	231	75	46	40	24	90	153	154	813

#### NOTES TO TABLE III.

The classification and numbering of Causes of Death are those of the "Short List" on page XXV. of the Manual of the International List of Causes of Death, which should be consulted and followed in all cases of doubt.

Copies of this Manual were distributed to Medical Officers of Health in 1912 by the Registrar-General, and may be purchased either directly or through any bookseller from Wyman & Sons, Fetter Lane, E.C., price 1/-.

- (a) All "Transferable Deaths" of residents, i.e., of persons resident in the District who have died outside it, are to be included with the other deaths in columns 2-10. Transferable deaths of non-residents, i.e., of persons resident elsewhere in England and Wales who have died in the District, are in like manner to be excluded from these columns. For the precise meaning of the term "transferable deaths" see footnote to Table I.
  - The total deaths in column 2 of Table III. should equal the figures for the year in column 12 of Table I.
- (b) All deaths occurring in institutions for the sick and infirm situated within the district, whether of residents or of non-residents, are to be entered in the last column of Table III.
- (c) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified."
- (d) Exclusive of "Tuberculous Meningitis" (10), but inclusive of Cerebro-Spinal Meningitis.
- (e) Title 19 should be used for deaths from Diarrhæa and Enteritis at all ages. (In the "Short List" deaths from Diarrhæa and Enteritis under 2 years are included under Title 19; those at 2 years and over being placed under Title 28.)



#### TABLE IV.

#### Borough of Leigh.

# INFANT MORTALITY DURING THE YEAR 1913. NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES UNDER ONE YEAR OF AGE.

(See Note (a) at back).

					()					871-1				
	CAUSE OF	<b>Деатн.</b>			Under 1 Week	I-2 Weeks	2-3 Weeks	3-4 Weeks	Total under I Month	1-3 Months	3-6 Months	6-9 Months	9-12 Months	Total Deaths under 1 Year
A11. C }	Certified				27	8	10	8	53	47	56	38	37	231
All Causes }	Uncertified	• • •					•				I		<u> </u>	I
(Small-pox						·				. , ,	• • •			
Chicken-pox						•••				• •				• • • •
Measles							• • •	• •		• • •	I	I	7	.9
Scarlet Feve	r	• • •							••	•••	• • • •			•••
Whooping C						•••				2	3		• • •	. 2
Diphtheria a					• • • •		,			•••	• • • •			
Erysipelas									•••	• • •	•••		• • • •	• • • •
Tuberculous	Meningitis							,	•••				• • • •	•••
J Abdominal T	Cuberculosis					٠.		• • •	•••	• • •	•••	2	•••	2
Other Tuber					•••	•••		• • •	• • •	•••	•••	I	• • • •	I
Meningitis (	not Tubercule	ous)		••				• • •		•••	I	I	• • •	2
Convulsions								I	I	•••	3	2	I	7
Laryngitis				• • • • •		• • •		•••	•••		•••	• • •	:::	
Bronchitis		• • •				I	2	• • •	3	3	7	3	8	24
Pneumonia (	all forms)	• • •			• • • •	I	I	••	2	3	5	7	9	26
Diarrhœa	•••	••					I	2	3	8	12	9	5	37
Enteritis		• • •					2	I	3	19	13	7	4	41
Gastritis		• • •						• • •			• • • •			
Syphilis	•••	• • •							• • • •	• • • •		I		I
Rickets							• • • •		•••	• -		• • • •		•••
Suffocation,			•••		. I		• • •	•••	I				• • • •	I
Injury at Bir	th					1			I					I
Atelectasis														• • •
(Congenital I		as(c)			. 4	I	2	2	9	8	2		I	20
Premature F		•••			. 16	3	I	• • • •	20	5	2	• • • •		27
Atrophy, De		Iarasmus			. 2		I	1	4	٠	I	•••	• • • •	5
Other Cause	es	••	•••		4	I		I	6	4	6	4	2	22
			Tota	ls	. 27	8	10	8	53	47	56	38	37	231

Nett Births in the year: Legitimate 1216, Illegitimate 42. Nett Deaths in the year: Legitimate Infants 221, Illegitimate Infants 11.

#### NOTES TO TABLE IV.

- (a) The total in the last column of Table IV. should equal the total in column 10 of Table I., and in column 3 of Table III.
- (b) Under Abdominal Tuberculosis are to be included deaths from Tuberculous Peritonitis and Enteritis and from Tabes Mesenterica.
- (c) The total deaths from Congenital Malformations, Premature Birth, Atrophy, Debility and Marasmus should equal the total in Table III. under the heading Congenital Debility and Malformation including Premature Birth.

Want of Breast Milk should be included under Atrophy and Debility.

(d) For references to the meaning of any other headings, see notes attached to Table III.

In recording the facts under the various headings of Tables I., II., III. and IV., attention has been given to the notes on the Tables.





